

A Pragmatic Approach to Ethical Inquiry on Transhuman Athletes and
Gene Doping in Sport

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Dedication

You do not get to choose your parents but I may as well have. I would like to dedicate my thesis to my loving parents – my father Yousef who is the epitome of loyalty, honour and generosity and my nurturing mother Matilda whose strength, intelligence and selflessness is unfaltering. Thanks mom and dad for cultivating in me a seed of a love for learning. In addition, this thesis is dedicated to my sister Dina, brother Malek and sister-in-law Jenelle each of whom is always an amazing source of encouragement, inspiration, support and unconditional love.

Abstract

Gene doping is the most recent addition to the list of banned practices formulated by the World Anti-doping Agency. It is a subset of doping that utilizes the technology involved in gene therapy. The latter is still in the experimental phase but has the potential to be used as a type of medical treatment involving alterations of a patient's genes. I apply a pragmatic form of ethical inquiry to evaluate the application of this medical innovation in the context of sport for performance-enhancement purposes and how it will affect sport, the individual, society and humanity at large. I analyze the probable ethical implications that will emerge from such procedures in terms of values that lie at the heart of the major arguments offered by scholars on both affirmative and opposing sides of the debate on gene doping, namely fairness, autonomy and the conception of what it means to be human.

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Chapter One

Introduction & Overview

Introduction

Modern pharmaceutical and technological advancements have improved the ability to alter the biological capabilities of individuals. Particularly, these traits include those that influence the athletic capabilities of humans. Physical capacities that can be enhanced include speed, strength, fatigue resistance, rate of injury recovery and pain tolerance associated with heavy training. In producing an elite athlete, one attempts to optimize the individual's innate biological factors by manipulating aspects of their environment. The methods that are used include diet, equipment and high quality training programs. It is clear that society accepts the manipulation of some aspects of the athlete's environment and does not consider such conduct shameful or unethical. Yet, this is clearly not the case for performance-enhancing drugs whose usage is commonly referred to as "doping."

The world watched in utter fascination as Ben Johnson shattered the world record for the 100m sprint at the 1988 Olympics. Only two days passed before Johnson tested positive for a banned substance known as stanozolol (anabolic steroid). The praise and glory that this athlete received from the public was immediately replaced by ridicule. In conjunction with other well-known cases such as the 1998 Tour de France, this scandal raised attention around the issue of doping in sport and emphasized the need for an international independent organization that would oversee and coordinate anti-doping regulations and penalties for infractions. For this cause, the World Anti-Doping Agency (WADA) was established in 1999. As its name implies, WADA holds that doping is

unacceptable as it is against the spirit of sport and can be dangerous to the health of the athletes. Therefore, the fundamental goal of WADA is to eliminate all forms of doping in sport (Artioloi, Hirata, & Lancha, 2007). While it is currently agreed by sport governing bodies that doping, which includes prospective uses of genetic technology, is undesirable in sport and thus should be banned, it is important to question whether this stance is based on sound ethical arguments.

To be clear, doping is performed by some athletes to improve their athletic performance and thereby gain an athletic advantage over their competitors. One example of banned performance-enhancers is blood doping that involves a blood transfusion of one's own oxygen-rich blood or hormone administration to increase one's red blood cell count prior to an athletic competition. This practice improves oxygen delivery, and thus, one's aerobic endurance, meaning it is only beneficial to athletes in sports that demand a high aerobic capacity. Stimulants represent another form of banned substances such as ephedrine or amphetamine, which are mostly used to reduce fatigue and pump up one's adrenaline and aggression. A third common example of doping is the administration of anabolic steroids. Generally, steroids increase protein synthesis which allows an athlete to build up greater muscle mass during strength training.

Gene doping, the most recent addition to the list of banned substances and practices, is a form of doping that utilizes the technology involved in gene therapy. The latter is still in the experimental phase, but has the potential to be used as a form of medical treatment involving alterations of a patient's genes (Haisma & De Hon, 2006). In the near future, it is expected that such genetic technology will yield a profound impact on sport as it begins to be applied to athletes or by parents of embryos as a method of

athletic performance enhancement (McCrory, 2003). Due to these predictions of a genetically enhanced future for sport, some camps within the sporting community including WADA are currently concerned. Some of this concern can be attributed to the possible incompatibility with autonomy as an educational goal since genetic enhancement may endanger the individual's autonomy or right to an open future. For example, this may occur if children are coerced by parents or authority figures to pursue a single direction in life such as that of an elite athlete (Campbell, 1990). For this reason, it is conceivable that moral examination should focus on the types of, as well as goals behind, genetic enhancement and the consequences that it would have on the participants and the sporting world at large.

WADA acknowledges past trends in which drugs that are still in the experimental phases of research often manage to enter the athletic world (Haisma & de Hon, 2006). Although at present gene doping is virtually impossible to detect (McCrory, 2003), it has been added to the official doping list formulated by WADA (WADA, 2009). Consequently, WADA has publicly stated that, in order to remain one step ahead of genetically enhanced athletes, it has devoted funds for research on detection methods and control programs for gene doping in sport (Munthe, 2005). In fact, WADA has already suggested that some detection methods that may be used for gene doping currently exist or are in the developmental phase of research. These methods will undoubtedly require genetic testing procedures (Munthe, 2005).

Subjecting athletes in the future to genetic tests in order to detect those who have been genetically enhanced gives rise to a wide array of ethical issues such as possible misuse of information about the individual by health-insurers and employers (Munthe,

2005). Andy Miah (2005) suggests that those ethical issues that could potentially emerge from the use and abuse of genetic information have drawn less attention in the sport ethics community than is warranted because he views them as currently representing our most pressing concern with respect to gene doping as they do not considerably depend on future technology. Furthermore, it is argued that predicted possibilities of detecting this form of gene doping presented by WADA and the Olympic Movement are overly optimistic and simplified. Reliable and effective control programs will have to include quite extensive procedures of repeated sample taking and genetic mapping of athletes (Munthe, 2005) which may undermine the dignity and liberty of athletes. For instance, administration of these tests will, without doubt, demand the consent of the athletes. While consent should be freely given, coerciveness would be present if one considers that athletes who refuse to submit to the test would be disqualified from competing.

In addition to ethical questions about coerciveness in testing, many ethical questions arise regarding fairness and privacy in the use of genetic information; for instance, who ought to have access to genetic information of individuals? Similarly, who should have the right to control personal genetic information and how should this information be used? Other questions arise about what kind of psychological impact or stigmatization may occur due to an individual's genetic differences. It has been suggested that some of these ethical questions may be extrapolated from issues that have already been addressed in the medical domain due to genetic testing for health purposes (Munthe, 2005). This leads one to question whether, and to what extent, the conclusions that have been drawn from medical ethics regarding genetic therapy extrapolate to the use of these

medical procedures to enhance the performance of healthy athletes. Christian Munthe warns that,

it is a matter of urgency to consider to what extent this ethical controversy can be predicted to extend also to such uses, and what implications this will have for the question of what ethical requirements must be met by a control programme for gene doping, in order for it to be a defensible practice. (p. 108)

Main Questions

Ultimately, I will apply a pragmatic approach to ethical inquiry, which will be described later, in an attempt to determine the desirability of permitting or inhibiting the integration of gene doping for athletic enhancement purposes. To reach this objective, I will analyze the ethical implications that such procedures will have on sport, the individual, society and humanity at large. My primary aim will be to assess the most probable consequences of gene doping on the values that can be identified as lying at the heart of the major arguments offered by scholars on both affirmative and opposing sides of the debate on gene doping found in the sport philosophy and ethics literature. Specifically, the purpose of my research will be to analyze the implications of gene doping athletes on the value of fairness, autonomy and the conception of what it means to be human.

Rationale for the Study

Justification of General Topic

To deter my pursuit of the topic and the questions I have chosen to address for my thesis, a critic could very well point to the countless pieces of literature on the topic of doping in general that have been published to date and the breadth of ethical issues that

have been covered within those scholarly pieces. From this, one might claim that there is no compelling need for further research in ethics on the topic. Such a claim would rest on an underlying assumption that gene doping is merely a subspecies of other forms of performance enhancement, such as anabolic steroids, already present in sport and extensively examined over the last several decades in the sport philosophy literature. If one grants the precision of this assumption, this leads to the notion that the ethical implications linked to gene doping are no different than those associated with performance-enhancement drugs. Such criticism could potentially debunk the rationale behind my study.

As a response, I will refer to an early article on gene doping and sport where Miah (2001) convincingly contends that genetic technologies are indeed qualitatively different than current drug doping techniques in sport by outlining the main differences that exist between gene doping and conventional forms of doping as well as the novel ethical considerations that genetic technologies produce. One major difference is that while conventional drug doping techniques can only be used post-birth, genetic technology may be employed pre-birth and may also alter the *hereditary or germ-line* cells within the body. The most obvious ethical implication that emerges from this distinguishing characteristic of pre-birth gene doping is that the decision to enhance is not made by the recipient of the enhancement which potentially threatens the individual autonomy of the enhanced individual. Also, since genetic technology may be employed without the consent of the individual, it appears nonsensical to denote him or her as a cheater or clearly artificial or unnatural. Allegations of artificiality are also complicated by the fact that the use of the individual's own tissues is not compromised by genetic technology

given that it simply alters one's natural genotype, unlike medical instruments such as prosthetic limbs, which are external to the individual. Additionally, Miah suspects that parents might feel coerced into enhancing their children before they are born so that they are not starting out their lives disadvantaged relative to others. Consequently, widespread utilization of that technology could reduce genetic diversity, perhaps increasing the vulnerability of the human species if some extent of diversity is a requirement for survival at the species level.

Thus, the vast array of new ethical consequences that could begin to surface in a sporting environment where gene doping athletes dwell clearly warrants ethical reflection aside from that which has already taken place in literature in sport philosophy and ethics on conventional drug doping. Yet, even if one can appreciate the qualitative differences between gene doping and performance enhancement drugs, the latter of which has been one of the most discussed topics in sport philosophy literature to date, it might still be argued in the other direction that the breadth of sport philosophy and ethics literature that has specifically examined gene doping is much too extensive to warrant the need for further study. Furthermore, there are clearly differing viewpoints and camps in gene doping debates and to conjure up a consensus on whether or not gene doping is ethically permissible seems extremely problematic, if not impossible. In the following section of my proposal, I will introduce my pragmatically informed approach to ethical analysis that will provide a new orientation through which the issue of gene doping can be analyzed. As will be made evident, it is far from my intention to seek the absolute truth with respect to the ethical permissibility of gene doping in a sporting context or to set the stage for conclusively mediating this debate; rather, my primary objective is to examine the issue

using a theoretical framework that has not yet been utilized in ethical inquiries on gene doping despite, as I will subsequently outline, its usefulness and relevance to this issue.

Justification of Chosen Theoretical Approach

As defined by the Oxford English Dictionary, *pragmatism* refers to the doctrine that an idea can be understood in terms of its practical consequencesassessment of the truth or validity of a concept or hypothesis according to the rightness or usefulness of its practical consequences. (Pragmatism, n.d.)

My decision to engage in a pragmatic mode of thought is supported by theoretical literature on bioethics research (Brendel & Miller, 2008). Pragmatic reasoning has been characterized as a useful organizational tool for bioethics, providing focus in deliberations on far from simplistic situations that struggle to bring differing ethical concepts together (Schermer & Keulartz, 2003) and as a potential aid to policy evaluators due to its ability to link theory to practical outcomes (Patton, 2002). Moreover, philosophy of science literature has demonstrated the applicability of pragmatism to a wide range of real-life bioethical challenges (Arras, 2001; Brendel, 2003; Cooke, 2003; Hester, 2003).

As many different forms of pragmatism exist, I must clarify the distinct class of pragmatism that I will employ. In particular, *freestanding pragmatism* has been recommended for clinical research ethicists because it represents a valuable guide for them in deciding whether to permit or hold back the use of technological innovations in medicine to improve the human condition while protecting human rights. I will refer to this version of pragmatism since my analysis of gene doping will also involve the abstract decision of endorsing or holding back a technological innovation. Freestanding

pragmatism should not be understood as a systematic and structured guide for ethical analyses; rather, it ought to be perceived as an open form of inquiry that focuses on reasoning practically about ethical dilemmas. This kind of moral thinking is “bottom up” as it is context-dependent and responds to particular dilemmas (Brendel & Miller, 2008). A pragmatic perspective promotes consideration of the ethical values as guides, as well as a realization that context is crucial to resolving ethical dilemmas.

While an alternative ethical approach in which absolute moral imperatives are context-independent would result in a “tyranny of principles” (Toulmin, 1981), freestanding pragmatism provides structure for researchers without restricting flexibility. As a novice researcher, this structure will increase my levels of confidence and comfort, but will still leave room for flexibility that is required to effectively reason through ethical complexities. It is impossible to conceive that there can be universal agreement on how to resolve every ethical dilemma that is posed by controversial biomedical advancements. Some sport philosophers, such as Tamburrini and Miah, believe that genetic enhancement in sport represents the natural “next step” in sport’s progression, while Brown, Lenk, and others believe that we should avoid genetically modifying individuals for sport. As core values could possibly conflict with one another, pragmatic ethics will be invaluable in the challenging process of attempting to compromise between competing objectives.

I will aim to adhere to the six distinct features of freestanding pragmatism (Arras, 2001). These six features will guide my ethical problem solving: *contextualism*, which implies that concrete as opposed to abstract examples will be used in moral problem-solving; *instrumentalism*, which means that I will focus on practical effects on prominent

values; *eclecticism*, in the sense that I will be using more than one source of values in ethical analysis; *theory independence* in that I will avoid breaking the issue down into components in the formulation of a theory; *reflective equilibrium*, which refers to the fact that I will be engaged in a constant reexamination of my assumptions to maintain consistency with respect to the judgments I will be making; and *search for consensus* so as to integrate alternate points of view during moral problem-solving.

Now that I have outlined the reasoning behind my choice to employ a pragmatic approach in my study, I will subsequently turn my attention over to the justification of each of the three values around which I have chosen to concentrate my pragmatic ethical inquiry, commencing with *fairness*.

Justification of Chosen Values

Schneider (2009), Lenk (2007) and Loland (2009) investigate performance enhancement in sport from different perspectives; yet, the value of *fairness* is central to the arguments made by all three of these authors. Both Lenk (2007) and Loland (2009) directly refer to the work of John Rawls (1958) and his notion of fairness in their explorations of performance enhancement in sport. Schneider (2009) advocates a revival of the value of a fair win and autonomy among athletes. If one attempts to decipher her rationale behind supporting this sporting ideal, it likely is very close to what Lenk (2007) and Loland (2009) have described in their respective articles. Lenk refers directly to the fair opportunity principle (FOP), which advocates for the removal of, or compensation for, those inequalities that significantly influence sporting outcomes, but for which individuals cannot be held liable since such inequalities are not significantly malleable. This leads to the notion that the winner of a competition ought to earn his or her victory

in virtue of his or her own merit rather than some factor for which people have no control over such as their genetic endowment. In competitions where gene doping is not equally accessible to all, a genetically doped winner would have unfairly gained victory, and to reiterate the words of Schneider, an unfair win is no win at all.

Yet, Murray (2009) explains how the FOP clearly runs counter to the position that is endorsed by Rawls. In actuality, Rawls, according to Murray, supports a refocused attention on improving fairness in basic institutions through the Difference Principle (DP) by ensuring that the current strengths and talents serve the interests of all, and it is certainly not the case, as Loland would have us believe, that Rawls advocates the crippling or leveling out of individual talents as through genetic technology for instance. Clearly backed by the ideas of Rawls, Murray refutes the need to implement in sport some sort of practice such as gene doping in order to establish equality in genetic traits.

In a similar fashion, Brown (2009) also depicts Rawls' DP. He first introduces his application of this principle after assessing implications of fairness and justice with the arrival of genetic technology in sport. Brown questions whether we should attempt to advance biotechnology when access to and thus benefits associated with such forms of technology will be limited to wealthy members of society. Brown states that the pursuit of enhancing general-purpose capacities that assist individuals in obtaining primary goods of human life could represent justified applications of the technology. Unlike Murray (2009), he firmly stresses that we should try to avoid both somatic and germ-line forms of genetic enhancement in sport. His warning is based on two kinds of danger that have been linked to genetic technologies for athletic purposes, one being the previously described future futility in enhancing narrowly defined traits and the other being that

there is a high risk of harm especially due to our meddling with the future of our children and possibly the future of their successors.

In the sport philosophy literature, Tamburrini (2007) and McNamee (2007) have also developed arguments pertaining to fairness in favour of and against transhuman athletes respectively. Upon evaluation of these arguments, I have noted several flaws in both positions that I assert must be addressed if cogency is to be granted to the arguments upon which either position stands. Tamburrini claims that to the extent that gene doping can provide a means for those individuals lacking innate athletic talent to catch up with others who happen to be blessed with superior athletic abilities, it can improve the fairness inherent in sport. Furthermore, since all athletes will be genetically identical with respect to physical capacities, this leaves other traits and capacities to determine the winners of competitions, such as dedication and effort, which Tamburrini believes are virtues that actually justify the praise and credit that winners are granted since they are in some way controlled by the individuals themselves. However, due to the current lack of scientific understanding on this matter, I find it is, at present, too naive to assume that fairness will be enhanced in sport, at least in the way that Tamburrini (2007) has claimed it will. Consequently, I believe that to persuasively argue for the capacity of gene doping to increase fairness in sport, one must look elsewhere for support.

A fairness-based argument against transhumanism, which advocates the “belief that the human race can evolve beyond its current limitations, especially by the use of science and technology” (Transhumanism, 2008) is that it would represent yet another avenue through which the wealthy segments of the population will dominate their poor counterparts. This argument is based on the idea that only those who can afford the

application of genetic technology will be able to reap the praise, credit and monetary rewards associated with commercialized elite sport (McNamee, 2007). I agree with Tamburrini's (2007) critique of this particular argument against transhumanism in which he asserts that merely because a technology is initially expensive, and therefore, only available to wealthy individuals fails to sufficiently justify the prohibition of this technology. Eventually, all participants of sport will be able to reap its benefits. Therefore, McNamee's reasoning in this particular case fails to convince us to withhold this technology.

The connection between fairness and autonomy, the second chosen value I examine, is made apparent through the works of the three authors with which I commenced this segment of this chapter. Schneider (2009) seems to agree with Lenk (2007) and Loland (2009) on fairness as an essential sporting ideal. However, she would likely criticize the approach taken by Lenk and Loland as unduly paternalistic. In this way, the value of *autonomy* is highly evident in her arguments. To elaborate, she claims that the issue of performance-enhancing drugs should be explored from the perspective of the athlete since they are the central actors affected by them. Schneider sees anti-doping organizations as futile as long as the decisions that are made regarding what should be considered doping and how doping bans are to be fairly enforced fail to consult athletes. More specifically, Schneider argues that sport-governing bodies should focus on protecting the safety and development of athletes; in Kantian terminology, they should view athletes as persons with rights rather than replaceable commodities or as actors perpetuating the institution of sport. This seems to be consistent with both Loland and Lenk, as they both recognize the need to avoid performance-enhancement strategies that

require a dependence on the expertise of others, which would make athletes lose a significant amount of control and authorship over their athletic performances. From this viewpoint, gene-doping athletes resemble machines dictated by scientists who are motivated by a desire to apply their technological innovations. Thus, a Kantian foundation is clearly embedded in the arguments set forth by all three of these philosophers and although their approaches differ superficially, they seem to be saying many of the same things.

Thus, in a similar manner to fairness, the second value, *autonomy*, which will shed light on another aspect of gene doping and transhuman athletes requiring ethical review, explicitly emerges through several scholarly pieces on the issue. Tamburrini (2005) fuels the debate when he assesses how paternalism and autonomy are implicated through germ-line genetic modifications of embryos. First, he argues that prior to the initiation of genetic engineering for athletic enhancement purposes, it will be developed for medical therapy applications and so it will most likely adhere to reasonable levels of safety. Tamburrini foresees it as being no more harmful than contemporary elite sports training measures. Tamburrini concludes that genetically engineering a child's athletic ability will only add to the set of skills and capacities that the child has to work with and could open up an opportunity without eliminating others.

Van Hilvoorde (2005) agrees with Tamburrini (2005) on the notion that genetic enhancement is associated with a risk of threatening an individual's autonomy rather than necessarily implicating an essential reduction in autonomy. The point of departure between the two authors is with regard to the severity of that risk. Specifically, van Hilvoorde claims that Tamburrini inaccurately perceives the risk as reasonably low

because he fails to recognize the enormous influential power that genetic engineering will have on directing a child's future choices.

In contrast, Sherwin (2007) raises the issue of autonomy and paternalism with respect to genetic enhancements that would be performed by competent adults, not children. She challenges the free choice argument, which holds that a fully informed rational adult should be permitted to exercise his or her own autonomous choice to employ genetic enhancement so long as it does not entail an excessive degree of danger. Sherwin's response to this argument is that it rests on a traditional interpretation of autonomy that views it in simple individualistic terms and assumes that individuals are completely unaffected by their societal surroundings when making decisions. As an alternative, she suggests a relational approach to understanding autonomy that recognizes that people form their values through dialogue and interactions with others. Through this understanding, one can see how only the very first athletes who decide to utilize genetic enhancement techniques will be exercising their freedom of choice or autonomy. The athletes who subsequently follow the lead of these initial users will likely be giving into the pressure to genetically dope in order to remain competitive in a genetically enhanced world of elite sport. Thus, Sherwin argues that the prevalence of gene doping will reduce autonomy overall and widespread use due to this coercive environment could lead to serious negative consequences for the collective and long-term interests of athletes. These notions illustrate the importance of assessing the value of autonomy and all other values for that matter from alternate perspectives prior to making allegations that the value is enhanced, hindered or unaffected by gene doping and transhuman athletes in sport.

Based on the third value I will be examining, McNamee (2007) makes the case against transhumanism. A main argument he sets forth against genetically enhancing individuals beyond what up until now has represented our humanly limits is that it will, in turn, change our self-understanding as human beings. It could result in a change in what we consider to be a good life but McNamee steers clear of accusations that a change in humanity's self-understanding necessarily represents a moral decline and recognizes that it could just as easily symbolize moral progress. Thus, this argument does not justify the endorsement of, or objection against, transhumanism.

In addition, another one of McNamee's (2007) arguments, which is based on a notion that gene doping will give rise to artificial selection in which mankind acts as the instigator, replacing natural selection, also fails to fully support opposing transhumanism. Specifically, McNamee argues against transhumanism because it would result in humans having a high degree of control over humanity based on preferences regarding the traits that should be modified which are inescapably linked to normative judgments. This initiates a new kind of *human nature*, but again, he does not offer any sort explanation as to why we would be worse off in a world with this new kind of human nature except for the fact that we understand it less than the present one.

At least at this stage in the scientific understanding of genetic enhancement, I tend to agree with McNamee (2007) that we should not welcome transhumanism into sport. However, I do not think that McNamee's arguments offer a sufficient basis for soundly arguing against this new control over human nature. He compiles several claims that appear to be illogically sequenced and, more importantly, he fails to adequately explain

the assumptions or reasoning behind the value judgments he makes in support of his position. For example, McNamee (2007) cites Jurgen Habermas when he claims that interfering with the process of human conception and by implication human constitution, deprives humans of the naturalness which so far has been a part of the taken-for-granted background of our self-understanding as a species....(and that) Getting used to having human life at the biotechnologically enabled disposal of our contingent preferences cannot but help change our normative self-understanding. (p. 188)

I would pose several questions to McNamee, starting with how naturalness is necessarily revoked by humans that utilize genetic enhancement to transcend current limits. Also, why is this change in our normative self-understanding necessarily implicated by transhumanism? And, for that matter, what justifies predictions that such a change will be one for the worse? I will attempt to address these questions in my study by referring to Jonsson's (2007) exposition of cyborg athletes and Murray's (2009) article where he highlights three conceptions of human nature in relation to sport.

To briefly illustrate these three different conceptions of human nature, it is helpful to consider the viewpoint ventured by Jonsson (2007) in which he advocates the welcoming of cyborg or gender-neutral athletes that may emerge out of gene doping applications and how his viewpoint would be judged differently depending on the particular concept of human nature that is assumed. While the first conception of human nature in relation to sport that is addressed by Murray (2009) as a normative guide that informs us on what is right and good would strongly reject Jonsson's advocacy of cyborg athletes, the second heroic/Romantic/Promethean viewpoint of humanity that would place

the highest degree of importance in a human's capacity to indulge his or her creative will and ingenuity in tinkering with his or her own body would support Jonsson's (2007) promotion of cyborg athletes. Murray depicts the third concept of human nature as a more realistic middle ground between the two previously illustrated extreme ways in which we can understand human nature. It views human nature as complex, multi-layered and to some extent limited and capable of both moral and immoral acts. Adhering to the third concept of human nature that Murray addresses would probably lead to a more cautious assessment of cyborg athletes. According to this conception of human nature, cyborg athletes, or athletes who do not clearly fall under one traditional gender category, would not necessarily be considered a morally good or bad thing. Perhaps, this could provide partial reasoning behind the part of Jonsson's (2007) main thesis that states that a cyborg threatening society's gender categories is not morally problematic. And, perhaps this might convince us that we should explore the second component of his thesis that claims that the real moral issue concerns the very existence of these gender categories in society.

Theoretical Foundation

In order to clarify the meaning of the term "paradigm," I will quote David Morgan (2007) who states that "a paradigm is a shared belief system that influences the kinds of knowledge researchers seek and how they interpret the evidence they collect" (p. 50). As previously mentioned, I will be applying a pragmatic methodology to my research. As a pragmatic researcher, I affirm the ontological position that an external reality which is independent of our minds does exist; yet, this external reality is ultimately unknowable (Cherryholmes, 1992). Based on this belief, the attempt of any

human to discover truth is futile since it is impossible to know, without doubt, that what has been discovered is an accurate representation of external reality (Cherryholmes, 1992). Researchers should avoid claiming that they have discovered the external or absolute truth and should recognize that what they have come to understand or explain through research can, at most, represent a *provisional* version of the truth (Johnson & Onwuegbuzie, 2004). Just as the once widespread and undoubted belief that the world was flat was turned upside down, all of our conclusions, in fact, even our most seemingly undeniable beliefs, are provisional in the sense that they are always subject to revision. The implications that this will have on my study is that the conclusions that I will generate from my research could never be considered perfect, certain or absolute (Johnson & Onwuegbuzie, 2004).

Furthermore, in contrast to the positivist notion that studies advance our knowledge of the external world, my conclusions on the ethical permissibility of gene doping should be assessed based on their utility in promoting and not conflicting with the reader's notion of a desirable community and not how accurate they are in explaining reality. The community that I propose to the reader as being desirable and relevant to the specific ethical issue at hand is one that upholds certain values. Thus, rather than a positivist search for absolute truth, I will be involved in the pragmatic pursuit of what is useful (House, 1992).

The pragmatist approach promotes a focus on tailoring the method, or combination of methods if applicable, to the specific purpose and context of the study so that the research questions can be most adequately answered (Hoshmand, 2003). For this reason, the pragmatic paradigm has been suggested as a solution to the debate between

positivism and constructivism, also known as the “paradigm wars” (Creswell 2003). The pluralist perspective based on pragmatism helps to break down traditional dichotomies and the notion that research based on opposing paradigms is incommensurable which improves communication within and between different academic disciplines (Maxcy, 2003; Watson, 1990).

The search for utility provides the pragmatic researcher with a connection between abstract epistemological ideas and the technical methods that drive the study. Consistent with the ideas of classical pragmatists, my undertaking of this research is not aimed at the abstract quest to further humanity’s body of knowledge. Instead, my use of a pragmatic approach is meant to contribute to an understanding of gene doping that is *practically useful* in informing how we might respond to its arrival in sport based on values. Either subconsciously or deliberately, the choices of researchers are always based on their values. My decision to use a pragmatic approach forces me to acknowledge how my own values shape my research goals, as will be discussed in the *Reflexivity* section.

Limitations and Delimitations

It is important to make note of the main limitations that I will have to accept as I begin to engage in this study. For one, given that I am not sufficiently proficient in any other language beyond English, my research will be limited to English sources. This could very well affect the outcome of my thesis due to potentially failing to discover alternate perspectives, arguments, or critiques written in other languages with respect to the issue. Another limitation I will face is the absence of studies utilizing a pragmatic approach to ethical query into the issue of gene doping or other forms of performance-enhancement in sport for that matter. Therefore, seeing as how I will be using a novel

approach to tackle this issue, I will have to rely on my own comprehension of this theoretical framework as I attempt to extrapolate pragmatic techniques used in different disciplines of research to determine how the approach can be applied in this case.

In addition, it is equally important to declare to the reader the restricted scope I have voluntarily chosen for the purpose of my study, also referred to as the *delimitations*. It may be argued that this issue integrates ethical issues of sport, as well as ethical issues of medicine since gene doping could represent a misuse of medical procedures in sport. Based on this premise, one might concur that both principles of medical ethics and sport ethics should be addressed. However, Miah (2005) advises us to appreciate that sport functions somewhat under its own norms and rules, which are often distinct from those of broader society, and that core values of sport including fairness, integrity, respect and equity must be considered.

Furthermore, the mere fact that gene doping will initially represent a medical innovation fails to warrant the requirement of a medical ethics perspective when discussing the issue of gene doping within the realm of sport, at least in the sense that the principles of medical ethics such as beneficence and non-maleficence (Beauchamp & Childress, 2001) do not need to be consulted. In fact, in the event that gene doping for athletic enhancement purposes was to be included as a medical practice, it would fall under the domain of sports medicine which has been criticized for failing to represent a legitimate form of medicine (Edwards & McNamee, 2006). Based on this, I would like to argue that it would be illogical to impose the core values of medical ethics onto ethical inquiries on the permissibility of gene doping for sporting purposes. In support of this view, I will highlight arguments made by scholars who, in an attempt to articulate a

conceptual difference between “treatment” and “enhancement,” allude to the very idea that sports medicine is not medicine.

Juengst (2009) outlines three main orientations that might be used for the purpose of debating gene doping in a sporting context, namely depicting “enhancement” as any intervention that: falls beyond the medical profession’s domain, augments an individual’s functional capacities above that person’s normal range or occurs where no pathology is present. All three of these orientations would support the contention that when it aims to promote athletic performance in already healthier portions of the population, as would be the case in gene doping, sports medicine appears to miss the primary goal of medicine which is identified by Edwards and McNamee (2006) as alleviating suffering and extending life. An objection could be raised against the utility of any of the three abovementioned approaches in this debate. Specifically, gene doping in sport could be depicted as treatment if it is framed as a form of prevention for elite athletes reverting back to the normal range of functional capacities. I agree with Edwards and McNamee (2006), Morgan (2009) and Juengst (2009) on their response to this objection. These authors dismiss this counter-attack as too permissive because such an interpretation can easily be exploited to expand the range of practices that are deemed to be forms of treatment to include those which are actually sorts of enhancement. What is made apparent through attempts to conceptually clarify the treatment-enhancement distinction is that it makes the most sense to categorize the particular practices of sports medicine that fail to aim to alleviate suffering, which in the future could include gene doping, as types of enhancement, not treatment. Hence, the inclusion of a strict bioethics or medical

ethics perspective when constructing the list of values that ought to dictate my pragmatic ethical investigation of gene doping in sport is not warranted.

I believe that this decision is also supported by an alternative conceptual understanding that is proposed by Morgan (2009) in which the line that separates enhancement from treatment is not merely a metaphysical or natural one; rather, it is socially constructed. This leads Morgan to shift his focus to discerning between two forms of enhancement, namely those that should be deemed acceptable in sport and those that should be prohibited. On this note, Jeungst (2009) contends that the central concern with the prospective introduction of gene doping into the world of sport is the worry that it threatens what is at the very heart of sport's celebration of human excellence, namely the hierarchal ranking of inherited talents. Morgan bases the kinds of enhancement he thinks should be banned from sporting practices, which are those that improve certain innate features that are crucial to performance in the competition such as gene doping, on this key normative theme unique to sport and not at all on core values of medical ethics.

A second delimitation must also be acknowledged. Through my central research question, I will attempt to determine whether by allowing athletes to become genetically enhanced, we necessarily threaten the value of fairness, autonomy and what it means to be human. If I concur that, yes, these core values are indeed threatened by allowing gene doping in sport, I still cannot deduce from this that banning gene doping from sport is morally justified. This is because other ethical problems briefly discussed in the introduction to this chapter may arise due to particular measures that sport governing bodies will have to employ in order to effectively enforce anti-gene doping policy. These problems could include coercion into genetic testing, endangering privacy by virtue of

the individual's genetic map which may also decrease fairness if it leads to denial of services or entitlements to individuals who have particular conditions or genetic predispositions (Billings, Kohn, de Cuevas, Beckwith, Apler, and Natowicz, 1992).

Clearly, it is of equal importance that ethicists determine whether the consequences that can be attributed to the incorporation of genetic testing in sport are useful in promoting or actually conflict with our vision of a desirable community. This could potentially serve as a secondary research question, which could also be studied through the pragmatically informed steps I have chosen for my ethical inquiry, but which I am opting to omit from my thesis for the sake of time and manageability.

Chapter Development

Five chapters will comprise my thesis. This chapter will serve as my introductory first chapter. The second chapter will entail a thorough examination of my chosen theoretical approach through the literature on pragmatism in general as well as on freestanding pragmatism in particular. I will review basic descriptive literature on this theoretical framework as I have already done (Cherryholmes, 1992; House, 1992; James, 1897; Maxcy, 2003; Morgan, 2007; Mills, 1969; Cooke, 2003; Hestel, 2003), in addition to literature in which pragmatism is applied as a form of ethical analysis. I will locate much of this "applied" research from sources within the discipline of education as well as mainstream and clinical research ethics. The strengths and weaknesses, flaws or limits associated with using this approach will also be acknowledged.

One of the most distinct features of pragmatism is the emphasis on *utility* of courses of action. The utility of a particular course of action is assessed on the grounds that that particular action is useful in promoting a desirable community. For example,

there are those individuals who might desire, and contrastingly those who might object to, a community in which parents are permitted to genetically design their offspring, whether prior to or after that child's birth, to make them better suited for success in a particular sport. Thus, the first step of my pragmatic ethical inquiry, which will take place in the third chapter, will involve deciphering the type of community that I feel is the most desirable.

In my case, I have determined which principles or values that appear to be related to the issue could impact the decision of whether we should permit gene doping and welcome the introduction of transhuman athletes in sport. In order to do this, I referred to the probable consequences that philosophers have argued may result in the event that gene doping is practiced in sport. A pragmatic method of ethical inquiry would require one to put forth an adequate defense for a hypothetical community and to justify the preference for that community over all the other alternative communities that one could conceive. Leading up to the final chapter, I will be involved in this phase of the traditional pragmatic process only to the extent that I have identified which particular values such a desirable community would endorse and that gene doping debates seem to center around. It is worth noting that the sequence of these two initial steps, namely identifying a desirable community and identifying desirable values in that community, need not be strictly distinct and will not be required to occur in the order in which I have presented them. For my purposes, I have already selected three values that appear to be most relevant to this issue and will only be describing my notion of a desirable community by defining these three values. The kind of community I propose will be most useful when considering the ethical issues that may ensue with the prospect of gene

doping athletes in sport is one that upholds the value of fairness, autonomy and the concept of what it means to be human.

Therefore, in the third chapter, I will aim to define each of the three values in sufficient detail with support from philosophical sources, as well as sources from sport philosophy and ethics. For instance, in order to precisely clarify what it is that I mean by fairness, Rawls and his notion of fairness (1958) will be integrated with the works of sport philosophers that conceptualize fairness in terms of access and sport as a competitive endeavour including Lenk (2007), Loland (2009), and Schneider (2009). Autonomy will be understood with support from moral philosophy references, predominantly Kant's (1785/1964) *Groundwork for the Metaphysics of Morals*. In addition, I will critically review the works of Tamburrini (2005), van Hilvoorde (2005), and Sherwin (2007) with respect to gene doping and autonomy in sport. I will attempt to reason through and clarify the different perceptions of human nature outlined by Murray (2009). Additionally, if necessary, I will explore these or other conceptions further through sources in mainstream philosophy to suggest some universal features that are shared by all of humanity, as well as how these features may interact with gene doping practices.

In the fourth chapter, I will present all of the potential ways that transhuman athletes and gene doping can affect fairness, autonomy and the conception of human nature. The possible consequences of gene doping and transhuman athletes in sport will be assessed by envisioning whether each would promote, conflict or be congruent with one or more of the three values and what this implies for the permissibility or desirability of gene doping in sport.

I suspect that one of the most challenging aspects of the method I have chosen will be to compromise and find an adequate balance and prioritization among competing values. In the fifth and final chapter of my thesis, this balancing act of values will be made possible by one of the main pragmatist commitments that holds that ethical values and principles do not have absolute status. When it comes to moral problem solving, values, rules or principles should function hypothetically. Thus, I will likely be confronted with dilemmas involving competing values, especially due to the fact that I will be considering core societal values strictly in a sporting context which may be guided by a different set of values or a different understanding of particular values than other societal institutions or practices. As explained by Dewey (1929/1985),

A moral law, like a law in physics, is not something to swear by and stick to at all hazards; it is a formula of the way to respond when specified conditions present themselves. Its soundness and pertinence are tested by what happens when it is acted upon. (p. 222)

In the concluding chapter, the likely consequences of transhumanism and gene doping in sport will be used as a reference when I critically assess each of the moral values that I have elected in terms of three specific criteria, namely its relevance to the issue, scope and relative strength as compared to competing moral values. This will allow me to comment on the usefulness of this particular list of values in examining gene doping and transhumanism in sport. Ultimately, in this concluding chapter, ethical permissibility will be granted to the position on gene doping that promotes the desired community. Given my pragmatic approach and due to the fact that I limited my study to

three values, it is almost certain that this permissibility should be understood as conditional and context dependent.

Reflexivity

As mentioned, I must describe the type of community that I feel is most desirable using values that such a community would advocate which in my opinion include the values that I have identified as residing at the core of this issue, namely fairness, autonomy and the concept of what it means to be human. I may be criticized because my notion of the ideal community and important values can be reduced to mere opinion which is shaped by an individual's unique set of experiences and cultural, personal and political background.

It follows then that there are bound to be people that disagree with me on the particular values I have claimed are important enough to dictate our actions on this issue. More deeply still, the values I have put forth have been formed by the desired end goals I hope will be promoted through my research. These goals have, in turn, been shaped by my experiences in life that have given rise to my current perspective. Due to my middle class status, I have had the opportunity to participate in organized sport throughout the entire course of my life and have enjoyed it thoroughly. I have grown up in an era and culture where females are encouraged to participate in sport and foundational values including fairness, equality and autonomy among citizens serve as ideals. I recognize that I have gained a plethora of valuable skills and experience through my participation in sport that I have definitely transferred into various other aspects of my life. My love for athletics has likely contributed to my concern that some practice may threaten the goodness of sport. I credit my experience in sport as contributing to the development of

many of my skills such as my work ethic. This probably was rooted by the clear link between my success in sport and the amount of effort I would invest in it. This experience is consistent with what I have learned through the Western society in which I live that promotes a democratic capitalistic notion of meritocracy that effort should equate to success. My interest in this topic is embedded in my desire to maintain the goodness of sport, by which I simply mean the potential of sport to be positively experienced by its participants and sport's ability to develop good character and positive values in individuals.

This leads me to question whether due to its subjective nature, the pragmatic approach is extremely conducive to the researcher's biases, and, as a result, is disadvantageous in terms of consistency and reliability in moral decision-making. Yet, as has been shown above, this flexibility can be viewed as a virtue because it allows for the congregation of multiple perspectives so that they can inform one another, which is more conducive to the cultivation of a general consensus on controversial issues such as the one at hand. As this relates to my study, the values I selected were not chosen until after a thorough review of literature on the issue of gene doping. This is not to say that my choice of core values is exclusive and accurate or that no other relevant values are at stake here. Recall that a pragmatic epistemological stance requires one to give up on the belief that we can mirror reality. As a pragmatic researcher, I am not concerned with discovering absolute truth, such as the intrinsic values of sport or the ethical principles that would best guide our sporting and other social practices; not only is this impossible, it is also not necessarily useful (House, 1992). Rather, if it is useful for inquiry, I will use it. In fact, whether or not I have accurately and fully depicted the values that are most

susceptible to hindrance or enhancement would not affect my conclusions on gene doping since pragmatic conclusions are context-dependent.

I will attempt to test the utility of this particular list in preserving the “goodness” of sport by considering each value separately and envisioning the consequences that would likely occur if sport participants were to violate that value in sport. For instance, if honesty were a value around which I was focusing my ethical inquiry, I would envision consequences like cheating to ensue if honesty was virtually absent from sport. And if such deceptive rule violations were prevalent due to a lack of honesty, then acceptance of the rules that constitute the game would not be evident and this would prevent any real game from taking place (Suits, 1978).

Moreover, the interpretation of each value, such as fairness, is influenced by the cultural context in which it is expressed. It may be argued that there are no absolute definitions of terms such as “good,” “evil” or “harm” as the definitions of these words vary along the wide spectrum of cultural and religious views. In some cultures, these words may even lack meaning. Given that this thesis will hopefully, at least modestly, contribute to debates on gene doping and considering that WADA’s ban against gene doping is universal, should we be worried that some cultures could very well not even hold these same values at a high level of priority let alone interpret them in the same way? The alternative to a universal prohibition against gene doping may be selectively forbidding it only in cultures that would interpret values in a manner that supports a ban on gene doping. This, however, is unacceptable, as it would defeat one main purpose of gene doping bans which is to aim to preserve an equal playing field in sport.

To reiterate the words of Patton (2002), I do not need to worry about questions about subjectivity because “the ideals of absolute objectivity and value-free science are impossible to attain in practice and are of questionable desirability in the first place since they ignore the intrinsically social nature and human purposes of research” (p. 50). Patton advises against the use of the terms *objectivity* and *subjectivity* in critiques of methodological paradigms. I will follow Patton’s (2002) pragmatically informed recommendations to “stay out of futile debates about subjectivity versus objectivity” (p. 50). Instead, the emphasis that better suits pragmatic research is *intersubjectivity* as I will need to move back and forth between various frames of reference.

Trustworthiness

While rejecting the utility of debates concerning objectivity and subjectivity, I will discuss concerns of *trustworthiness*. In this regard, the quality of my research can be judged based on *balance*, which is often referred to as *neutrality*, *fairness* and *completeness* (Patton, 1997). In order to maintain a neutral position, I merely will be testing a theory that gene doping and transhuman athletes could potentially conflict with the value of fairness, autonomy and our conception of human nature, as opposed to having a particular theory in mind that I will set out to prove. This neutrality will ensure that I will not oversimplify the complicating ethical issues involved in order to prove a particular theory such as that gene doping is, without doubt, against core societal or sport values. Moreover, as I will be acting as the instrument of data collection, I must thoughtfully deal with any potential sources of error and bias.

Some of the ways I will resolve or reduce concerns of bias and error in my research will include systematic data collection procedures in the sense that I will be

following the distinct features or guidelines of freestanding pragmatism. This subclass of pragmatism endorses eclecticism that I have upheld in the sense that I have drawn from multiple sources of values, namely all sides of the gene doping debate. This will enhance the quality and balance of my research because my ethical assessment will be based on more than one ethical viewpoint, which will increase the range of interpretations of relevant values considered.

As noted by Morgan (2007), the pragmatic approach necessitates abductive reasoning in that it involves moving back and forth between inductively converting observations into theories and deductively assessing those theories through action. The assessment of formulated theories would enhance the credibility and trustworthiness of the conclusions. Gene doping in sport has been predicted to have an immense impact on sport as we know it potentially threatening or promoting ethical values of sport and greater society. I will assess the consequences of gene doping that are expected to arise. However, one may argue that these expectations of consequences are based on mere hunches. Some may criticize my approach to ethical inquiry on the grounds that the accuracy of predictions could never be judged unless they were experimentally observed in practice. As a response to this objection, I will refer to William James (1897), a prominent pragmatist who expressed that

moral questions immediately present themselves as questions whose solution cannot wait for sensible proof. A moral question is a question not of what sensibly exists, but of what is good, or would be good if it did exist. (p. 10)

Yet, is there a way to maximize the confidence in my predictions of consequences without observing them in practice through experiments? According to

Patton (2002), all qualitative inquiry depends on and uses the researcher's experiences in the world and insights about those experiences. This could imply that past experience can be used to strengthen the accuracy of the expected outcomes of gene doping or genetic testing in sport. Keeping in mind the contextual implications, if it can be carefully established that scientific innovations, such as pharmaceutical advancements, already present in the sporting arena are sufficiently similar to gene doping, then the impact that they have had on sport could help us to assess our prophecies.

Moreover, WADA's fixed moral stance against gene doping assumes that one does not need to consider the manner in which it is performed prior to concluding that it is an unethical practice. From a pragmatic perspective however, the details that will likely be involved in the process of genetic enhancement in sport may tip the balance of ethical permissibility one way or another. A comprehensive understanding of the prospects of gene doping in terms of how it will likely be used in the future is absolutely crucial to the validity of ethical arguments that support or reject its practice in sport. For example, it is important to question whether reasonable safeguards would be placed against adverse effects. Therefore, I will seek to maintain consistency in my arguments with the most recent scientific findings on gene doping in as far as it could affect my assumptions and thereby conclusions.

Chapter Two

An Examination of Pragmatism, Pragmatic Axiology and Freestanding Pragmatism

Introduction

This chapter will present a thorough examination of my chosen theoretical approach. I will begin by providing a historical and descriptive account of my theoretical framework and its epistemological origins. The work of William James, John Dewey and Charles Sanders Pierce will be referred to in order to depict a broad range of thought regarding pragmatism. The axiological, and more specifically, ethics branch of pragmatism will then be illustrated, followed by a critique of pragmatism. This will lead to an explication of the rationale behind my selective adoption of freestanding pragmatism. I will then review and critique freestanding pragmatism and consider how it has been applied in different disciplines such as legal and bioethics theories. The strengths, weaknesses and limits associated with using this approach will also be acknowledged. Finally, I will defend against possible objections to freestanding pragmatism as a useful approach for my study.

Pragmatism

A Historical and Descriptive Account

Created as a branch of philosophy nearly one hundred years ago, pragmatism to this day is regarded as the most distinctly American contribution to the field (Dickstein, 1998). Pragmatism is a philosophical tradition that entails a body of concepts and theories (Hester, 2008). William James first coined the term “pragmatism” in an 1898 lecture at the University of California at Berkley that he later published as an essay entitled, “Philosophical Conceptions and Practical Results.” As a foundation for critiquing

abstractions and absolutist thinking, James created the philosophical underpinnings of pragmatism that emphasize practice and action. James claimed that he was merely extending ideas that originated from his friend, Charles Pierce, roughly twenty years earlier. Interestingly, however, Pierce was less than pleased with receiving this credit because of the direction James had taken his ideas. The notion of pragmatism was met with controversy, as it was opposed by many critics who characterized it as nothing more than an extreme version of relativism – a philosophical theory that claims that “truth” must always be understood relative to some frame of reference – that challenges any concept of objective truth.

In this same period, a contemporary of James, John Dewey, developed a classical thread of pragmatism whereby the admirable effects of pragmatism reside in its translation of ideas into action and in its endorsement of challenging the status quo while reaching into the unknown future (Dickstein, 1998). James and Dewey, among other early pragmatists, argued that pragmatism could be instrumental in combating restricted gender roles, imperialism and racism, and advocating for democracy. To these scholars, pragmatism required an awareness of the experiences of those members of society who had traditionally been ignored such as women and minority groups. In the first few decades of the twentieth century, pragmatism was well suited for the political climate in the United States that was marked by liberalism, progressivism and social reform. Pragmatism confronted the religious and cultural authority and a simplified definition of truth, while promoting plurality as opposed to narrow immersion in a single perspective.

As reflected by the subtitle of his book, *Pragmatism: A New Name for Some Old Ways of Thinking*, James (1907) viewed pragmatism as not entirely novel in its approach

to problems (Dickstein, 1998). Pragmatists view philosophers, as well as other scholars and researchers, not as discoverers of absolute principles, but as advocates of ideas that project their own temperaments and desires. In James's eyes, the pragmatic movement in general endorses and makes explicit a phenomenon, which already subconsciously underlies research, inquiries and decision-making. In *Pragmatism*, James (1907) articulates his belief that laws and languages, as well as what we consider to be "truths" are "man-made things." He confirms as much when he states that "Human motives sharpen all our questions, human satisfactions lurk in all our answers, all our formulas have a human twist" (p. 159).

During the early days of pragmatism, a diverse group of critics were vocal about their distaste for this new philosophical enterprise. Many of them were opposed to pragmatism because of the ends that could be, and were being, justified through its application. Surprisingly, a particularly destructive attack on pragmatism came from someone who initially assented Dewey's philosophy. Specifically, Randolph Bourne criticized Dewey's pragmatic rationalization of the U.S. joining the First World War (Dickstein, 1998). He was concerned by the fact that pragmatism could be used as a tool to achieve what he deemed were morally foul ends. Moreover, Marxist critics accused pragmatism for serving as grounds to justify ruthless capitalistic business practices such as accepting or offering bribes.

Although for different reasons, conservatives also rejected pragmatism. For them, the fundamental flaw of pragmatism was in its apparent relativistic perspective that questioned and negated absolute principles and values (Dickstein, 1998). Early pragmatists insisted on questioning many of one's beliefs, whether religious, political,

scientific, or philosophical. They recommended that our experiences as historical and social beings serve as the basis upon which we should evaluate these beliefs.

By addressing the points of weaknesses that critics associated with pragmatism, James and Dewey produced some of their best works on pragmatism. For instance, pragmatism was charged with providing a rationale for anyone to believe whatever falsehood he or she finds to be expedient. James (1955) responds to this criticism by detailing the criteria that must be met in order to provide pragmatic verification of a proposition. The first criterion is that the proposition must fit with what we have come to know as the natural world through experience. So for example, the proposition that it only snows when the temperature is below zero degrees Celsius can be supported by one's experiences in the world, including that one never encounters snow in locations that are always warmer than zero degrees Celsius. Secondly, the proposition should be compatible with one's collection of beliefs that have persevered notwithstanding the testing of those beliefs by experience. With respect to this criterion, let us say that I have a belief that has been supported by experience that altitude and temperature are inversely related. As it relates to the proposition that it only snows when the temperature is at or below zero degrees Celsius, this means that it could be snowing on a mountaintop but raining lower down the mountain if the temperature at the former but not the latter is below zero degrees Celsius. Thus, the proposition fits with the belief. The third and final consideration that must be met in order to deem a proposition as a pragmatic truth is that it yields overall satisfaction. For example, how likely is it that some other atmospheric condition besides subzero temperature is actually the antecedent of snowfall but coincidentally accompanies temperature drops below zero degrees Celsius during each of

my experiences with snowfall? If this is highly plausible, I would be dissatisfied with holding it as a pragmatic truth. But, since all of our experiences and the scientific understanding of snow formation leads to satisfaction with this proposition, it can finally be recognized as a pragmatic truth.

For analytic philosophy, language, in addition to logic, represents its subject matter. Language is also considered important by pragmatic thinkers like James and Dewey, but only because of its ability to provide a passage through which we can understand the experience of others (Dickstein, 1998). For this reason, James discusses the need for consistency with oral and written communication. Given that we are unable to test every proposition for ourselves, we are to indirectly access the experience of others through language and historical knowledge. This kind of reasoning reveals the importance of having a method of inquiry that leads one to a clear and useful understanding of terms and phrases.

Pierce's Pragmatism – An Account of Meaning

According to Atkin (2004), in C.S. Pierce's 1878 article, "How to Make our Ideas Clear," early formulations of pragmatism are introduced for the purpose of creating a principle of inquiry and account of meaning. Pierce's pragmatic maxim is intended to provide a means through which one can come to attain a full understanding of a concept or term. He builds this maxim on the idea that there are three levels of clarity that can describe one's knowledge or understanding of a term.

First of all, possessing the lowest grade of clarity of a concept is to have some unreflective working knowledge of the concept through lived experience. For example, if I know that by jumping off a building, a force will pull me downward to the ground, this

demonstrates that I possess the first level of clarity of the concept of gravity. A second level of clarity would require one to have the capability of providing a general definition of the concept, such as a force that requires that what goes up must come down. A full understanding of a concept, which Pierce (1878/1992) signifies as the third level of clarity, can be acquired if we:

Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then the whole of our conception of those effects is the whole of our conception of the object. (p. 132)

In simpler terms, the richest understanding of a concept requires, not only that one is familiar with the concept through daily living and is able to define it, but also that one has an understanding of the effects which can be reasonably expected to emerge if that concept is held to be true. For example, if I hold the concept of gravity to be a downward force on objects that are thrown up in the air, an effect of this proposition would be that dropping a rock from the CN Tower could potentially harm bystanders walking on the ground below.

At this point, I will use another helpful example that is provided by Atkin (2004) of the concept of “vinegar” in order to elucidate the process that leads to acquisition of the third grade of clarity. From a definition that vinegar is a diluted acetic acid or that vinegar is a substance that is sharp to taste, one is able to generate conditional propositions that describe the outcome of acting upon the entity. For example, if I assert that vinegar is acetic acid, this could cause me to believe that if litmus paper is dipped into it, it will turn red. Therefore, if one continues to make a list of such conditional propositions, which illustrate the effects that a concept has on other objects, this allows

one to achieve the highest grade of clarity regarding that concept. This final level of clarity is what is known as the pragmatic maxim and represents the heart of Peirce's early theory of pragmatism.

Based on this kind of criteria that comprises a full comprehension of a concept, it is possible to deduce what Peirce's pragmatic theory tells us about the meaning of concepts. The meaning of a concept is conveyed through various conditional hypotheses that pertain to a propositioned definition of it. Pierce asserts that it is the effects of the term's interaction with the other concepts that give rise to its meaning. Thus, if we are to understand the meaning attributed to a concept, we must understand the consequences of averring that meaning. In other words, a concept does not have meaning beyond its practical effects. Consequently, an attractive feature of Pierce's pragmatic maxim is that it allows us to determine where our efforts should be directed based on what concept poses greater potential impact to our lives.

Pragmatic Inquiry

Inquiry in pragmatic terms refers to cognitive assessment aimed at formulating a solution to the problem that is in question (Morris, 1970). Pragmatists use the scientific method to inform their preferred process of inquiry. In Pierce's paper, titled "The Fixation of Belief," an inquiry's only objective is to settle opinion with regard to a matter on which persons are in disagreement (cited in Morris, 1970). However, he states that people will try to deny this and insist that what we seek through inquiry is the "true" opinion, and not just one that is firmly believed. According to Pierce, this claim lacks credibility. He believes that although an opinion that is held may be true, we are not able to know with full certainty whether that opinion is indeed true. Pierce is more interested

in inquiry as a seemingly infinite process performed by a community of inquirers. His concept of a “true” opinion would be one that does not currently demand modification by subsequent inquiry. Pierce stresses this notion of inquiry in lieu of a “one-time” inquiry that would be based on a specific problematic situation. He believes that a general meaning could never hold for each occasion and that it would always be subject to revision. This perspective of inquiry is highly reflective of the method used by the scientific community in which further investigation builds upon previous inquiries.

Dewey differs from Pierce with respect to his notion of inquiry. He does not see it as a process to occur over an indefinite period, but like both James and George Herbert Mead, another contemporary pragmatist, Dewey views inquiry as directed at a specific and immediate problematic situation (Morris, 1970). Moreover, a judgment to Dewey, represents a planned course of action hypothesized to be a solution for a problematic situation that exists within a particular context. Thus, in order to obtain verification for the judgment or idea, or to be able to deem the idea as true, Dewey states that the action proposed to resolve the problem must be performed to show that it actually does solve the problem. However, to accurately represent Dewey’s ideas, I will adhere to the distinct language he uses in his book *Logic: The Theory of Inquiry* where he demonstrates his preference for the concept of *warranted assertion* over terms such as truth or knowledge. So, it is more accurate to say that Dewey considers an assertion as warranted, not truth, if it is built on the grounds of relevant evidence pertaining to the particular problem and if it resolves the problem in question. In this respect, a warranted assertion for Dewey must be determined for that particular situation only. This clearly differs with Pierce’s point of

view, which is based on the fact that one can never be certain in what one believes is true, thereby demanding an indefinite process of inquiry.

In Morris's (1970) overview of pragmatic methodology, he maintains that scientific inquiry, which is clearly embedded in the pragmatic method of inquiry, was indeed the main type of inquiry that influenced early pragmatists. What is meant by scientific is that the inquiry's main tenets are compatible with the basic terms of the pragmatic maxim – that its hypotheses are empirically observable. Dewey and Pierce agree with one another on the general steps of scientific inquiry. For these two scholars, the process of inquiry begins with a problem being observed. Each problem exists against a backdrop, which is *unproblematic* in the sense that it is “known.” Through abduction, a solution to the problem is hypothesized. To be clear, abductive reasoning involves determining or hypothesizing a sufficient but not necessary explanation for a particular occurrence. For example, a possible cause for a crack in my car's windshield is that it was hit by a rock while I was driving down the highway. Next, the consequences associated with the hypothesis are deduced, which are then tested. The testing of these effects actually represents the testing of the hypothesis. Testing is based upon inductive reasoning whereby the deduced consequences that were predicted to occur if the hypothesis is acted upon are observed (or not) when the hypothesis is acted upon. If the problem is resolved, the hypothesis is verified. The outcome can then be applied to inform or guide hypotheses of solutions to relevant problems.

This general pragmatic approach can be illustrated through an example of a pragmatic research study conducted within the field of education. The hypothetical pragmatic investigation on effective reading instruction, which Cherryholmes

(1992) details in “Notes on Pragmatism and Scientific Realism,” provides a simple template for educational researchers interested in this form of inquiry. I have included this hypothetical model because I believe it is applicable to other areas of study including my own.

The typical pragmatic inquiry into reading instruction begins with a review of the outcomes of research that exists on the subject. The effectiveness of different reading approaches can be judged by comparing the reading test scores of pools of students where each group is taught using a particular approach to reading instruction. In this respect, pragmatic researchers give priority to the practical outcomes of controlled studies because of their capacity to inform future observations and experiences. The findings of each of the research studies that are reviewed could very well lend credence to vastly different approaches to instruction on reading. It is possible that two or more approaches that are based on contradictory assumptions or supporting arguments are found to be effective. Effectiveness in this case is judged on the degree to which the approach to instruction teaches individuals how to read and is not the sole tool in the pragmatist’s arsenal. In the subsequent stage of the pragmatic inquiry, the researcher reflects on the type of community that he or she wishes to promote and determines which particular approach to reading instruction would, if adopted, promote that community. In other words, the researcher asks, what kinds of reading and readers would my desired community value and/or require for its existence? The origins of pragmatism suggest a community that endorses democratic ideals and values. According to Bernstein (1998), a community in the pragmatic sense must be made up of members who are critical thinkers and are capable of rationality. Bernstein also notes Dewey’s advocacy of a pluralistic

society as opposed to a homogeneous population, as well as his notion that unity must respect all of the distinctive features comprised by the population.

To more fully depict the process of inquiry, it is helpful to describe examples of contrasting approaches to reading that would be judged differently depending on the values of the preferred community. A technical reading approach would value the purpose of reading to retain the information from the passage in stark contrast with reading for aesthetic pleasure or reading through a critical lens. Any reading approaches that interfere with the values the desired community would uphold are eliminated from the pragmatist's teaching options. To the extreme, the pragmatist might even choose to actively oppose those approaches that conflict with the values he or she is trying to promote.

Thus, the process of pragmatic investigation outlined above is inherently marked by a belief that what works should not always be equated with what is desirable. This reflects Rorty's (1990) idea that "A God's eye-view is one that is irrelevant to our needs and practices" (p. 2). This is articulated in the educational researcher's pragmatic inquiry in that although there were objectively effective reading instruction approaches or approaches that "worked," some of these would be dismissed. The grounds for choosing to eschew or actively oppose certain approaches that were shown to be objectively effective would be those that do not suit the researcher's interests given the predicted consequences associated with them.

Thus far, I have only discussed the pragmatic approach to inquiry in general terms that are widely applicable and relevant to many disciplines. One might question whether the central features of pragmatic methodology remain the same when applied to different

areas of research that are associated with distinct types of problems. The pragmatic method of inquiry does not seem different when applied to scientific and moral study until we present the role of values within moral investigation.

Pragmatic Axiology & Ethics

John Dewey and Pragmatic Axiology

The following section will focus on John Dewey's pragmatic theory since he was responsible for developing pragmatism in the direction of value and ethics (Morris, 1970). While Pierce and other early pragmatists possess a natural scientist orientation, Dewey's moralist orientation informs his work on pragmatism. Pierce's scientific frame of reference results in his being primarily interested in the (conditional) "truth" of the hypothesis and indefinite inquiry. In contrast, Dewey's work reveals that he focuses on specific problems and whether the asserted solution is "warranted." He extrapolates pragmatism's general theory of inquiry to value-based problems within fields such as ethics, education, social philosophy, religion and philosophy.

The understanding of a few core concepts is required in order to convey a detailed account of pragmatic axiology that provides a connection between value and theory.

What Dewey means by the phrase, "to value" entails two distinct common uses, one of which can be described as the appraising/evaluating aspect of the term, while the second can be referred to as the prizing aspect of valuing (Morris, 1970). If an individual claims that something is worthy of "prizing," this represents the latter notion of valuing.

According to Morris (1970), Dewey views the concept of value not merely as something that is prized, but rather "a thing that, after having envisaged the consequences of prizing it, is prized" (p. 85). Values are to be determined by the process of inquiry and should not

merely be transported to a specific problem because of their usefulness in previous relevant inquiries. Performing an inquiry can reveal whether the resolution did in fact resolve the problem. The outcomes of previous evaluations can definitely be used for new inquiries, but only to the extent of serving as guides.

Central to pragmatic axiology, Dewey describes evaluation as the process of determining what to prize (Morris, 1970). Pragmatism never sees things isolated from the context in which it is situated. The context and circumstances that surround the issue or entity shapes its value and meaning to us. Any problem under examination comes with a set of features – objects, beliefs and meanings – that are considered unproblematic with respect to the particular problem. As this notion relates to pragmatic axiology, unproblematic prizings serve as the known context in which the problematic situation is set, thereby contributing to the evaluation of hypotheses concerning what to prize. For example, in the U.S.'s current struggle to discern the degree to which they prize universal health care, the value of the democratic process of deliberation is considered to be unproblematic. Thus, democracy would represent one aspect of the unproblematic context surrounding this contemporary problem. Its applicability in helping to form a resolution to this issue can then be tested. In this respect, evaluation in pragmatic axiology involves cognitive judgment, is empirical and can be tested with some unproblematic prizings.

For Dewey, the solution to a value-laden problem must be expressed through the means that are accessible (Morris, 1970). The judgment of the means proposed to solve the problem will be based on how effective the means are in achieving the desired ends. Moral ends are necessary to obtain a pragmatic sense of what constitutes moral action. In

at least one crucial respect, the prominent contributors to pragmatism, Dewey, James and Mead, share a central feature that resonates with one significant aspect of Kantian ethics. This is in their belief that all persons affected by a situation in which values conflict must be viewed and acted upon in a manner that demonstrates their status as ends and not solely as means.

To summarize, value problems can be categorized as political, ethical or aesthetic in nature (Morris, 1970). The pragmatic approach to the theory of value examines values from the perspective of an individual within and interacting with the world around him or her. The general theory of inquiry already described is applied to axiological kinds of evaluative inquiry such as that which is concerned with ethical issues. Thus, no general differences distinguish this type of inquiry from scientific inquiry. Each inquiry, regardless of the discipline within which it falls, occurs in a context that is unproblematic for that particular conflict. Also, to reiterate, a relevant inquiry that has been successful in solving the problem it intended to solve can contribute to the development of a volume of knowledge or, as Dewey preferred, a body of warranted assertions. These warranted assertions should not be categorically applied to each new relevant problem. Instead, the body of knowledge acquired through previous inquiry should conditionally guide inquirers in the way they approach new value problems.

Limitations of Axiological Pragmatism

Unfortunately, as noted by Morris (1970), no attempt is made by Dewey to integrate his general theory of inquiry with his work in ethics and aesthetics. Moreover, despite agreeing on how a pragmatic axiological evaluation would be carried out, two pragmatists could make two radically different evaluations. For example, Mead and

James are in agreement on the evaluation process concerning whether the U.S. should join the League of Nations following the First World War but not in the outcomes of their respective evaluations.

One point of weakness that might be attributed to pragmatic axiology is based on ambiguity that is present within pragmatic semiotics (Morris, 1970). This results in some terms and sentences being equivocal in their meaning such that they can be misconstrued. Pragmatic theorists fail to provide the reader with a clear and explicitly articulated meaning of commonly used terms. For example, it is not clear how axiological analyses such as judging what is good relates to analyses of non-axiological analyses of determining what is fact. Also, “practice” and “good” are not always differentiated from one another. In summary, within pragmatic semiotics, there is sometimes a vague relation between axiological and non-axiological types of inquiry.

Pragmatic Ethics

Morris (1970) concisely defines ethics as “the theory of moral behavior” (p. 91). Pragmatically speaking, moral behavior is to be judged on how it influences the individual. Evaluation of moral problems is inquiry into what is morally right versus morally wrong behavior and is judged upon how the behaviour affects the individual as well as others. For moral inquiry, a pragmatist holds that each value that is relevant to the issue must be considered. Also, the pragmatic ethicist emphasizes the uniqueness associated with each dilemma. This in turn implies that a single rule preceding the inquiry into the problem is insufficient. This notion leads to the criticism pointed at pragmatic ethics that claims that it leaves no room for accrued stocks of moral wisdom based on what has worked in the past. One can respond to this criticism by referring to

Dewey's (1939) book *Theory of Valuation* where he purports that generalized ideas are to be used to direct the examination of things in the concrete. In addition, knowledge is developed through the inquiry and is to be tested by considering the outcome of applying the knowledge to the issue. It cannot be denied then that moral principles are considered valid and applicable to pragmatic ethics. On this note, the reader is cautioned to take heed so as not to misinterpret the pragmatist's view of principles. Pragmatic ethics clearly does not accept principles - moral or otherwise - in the traditional sense of the term that authorizes absolute adherence to the principle of relevance.

Criticisms of Pragmatic Methodology

Critics of Pierce and Dewey accuse the theory behind pragmatic inquiry of not adhering closely enough to the respective philosophical ideas of pragmatism and vice versa (Morris, 1970). For example, Pierce's account of pragmatism demonstrates that he indeed holds a metaphysical principle, namely that we ought to continually engage in further inquiry. If one considers Pierce's view that one can never be certain in the truth of an idea and that it is always subject to revision through further inquiry, it follows that we cannot even hold his apparent metaphysical principle of continuity. This suggests that such a belief, which is foundational to pragmatism, cannot be acted upon in practice. This objection can be refuted because pragmatists do not require that beliefs be proven before they can be applied in practice; it simply has to be shown that holding a certain belief is useful or productive. Pragmatists recognize the fallibility and thus the provisional nature of their claims. I agree with Dickstein (1998) who believes that Rorty's account of pragmatism leads to a more constructive and hopeful perspective. Rorty argues that if one admits the pragmatic assertion that we have made all our beliefs rather than discovered

them, this does not mean that we need to discard them. In this sense, Rorty's views can be used to aid a response to the abovementioned criticism.

Critics of Dewey charge his theory with only allowing for what is within the inquiry to be known and that only immediate experience can be used for inquiry. This leads to the allegation that Dewey has the mind creating the object or entity it knows (Morris, 1970). Dewey responds to this criticism by describing his belief that experience is just one aspect of nature and does not constitute all of nature, a position he denotes as *cultural naturalism*. Morris (1970) describes Dewey's interpretation of, "a theory of inquiry" as "an inquiry into inquiry" (p. 69). This means that a general theory of inquiry requires the study of specific inquiries. Dewey establishes that these specific inquiries are not limited to direct experiences of the inquirer. Instead, inquirers can appeal to consultation to indirect evidence that can be supplied by others. Morris illustrates this kind of acceptable evidence with an example. The sample problem concerns whether a person was born where the evidence used to support the birth may involve reports by others of the occurrence, the recording of the event by a video camera or some other reliable device. In these ways, it is clear that the pragmatic theory of inquiry and the methodology advocated by Dewey are in fact consistent with his metaphysical notion of cultural naturalism.

Problems with the Pragmatic Maxim

According to the pragmatic maxim, a clear understanding of a concept requires an understanding of the possible effects that can be reasonably expected to emerge if that concept is held to be true. One objection to the pragmatic maxim could be based on the fact that it gives rise to too much being referred to as meaningful. This criticism of over-

inclusion is attributed to the guidance that is given by the maxim that is based on the possible effects and not the actual effects that have been observed. Thus, this may lead to an immensely vast list of expected outcomes as opposed to confirmed actions through experience being considered meaningful. Simply put, too much is deemed to be meaningful. For instance, the existence of God becomes meaningful simply because belief in the existence of God generates practical effects of human beings exhibiting more prudent behavior.

Another objection could be made to the pragmatic maxim that criticizes the fact that all conditional propositions are future-oriented. This unavoidable fact about the maxim seems counter-intuitive when assessing hypotheses that are based on the past. For example, the meaning of “O.J. Simpson was guilty of murder,” would lead to conditional statements concerning the future. Such conditional statements might include “if Simpson tries on the glove recovered at the scene of the crime, it will fit” or “If we check the scene of the crime, we will find Simpson’s DNA.” However, this challenge to the maxim, because it seems counterintuitive for hypotheses about the past, does not imply that one ought to stop using it.

Giving up on Epistemological Pragmatism – *The Shift to Freestanding Pragmatism*

One thought-provoking critique of pragmatism concerns an implication that can be drawn from its epistemological crux, namely that one should not attempt to explain “truth” or “reality” because one can never be certain of one’s beliefs. House (1992) is one scholar that refuses to accept this notion. He spurns the belief that the quest for truth is futile and misguided merely because we cannot be unequivocally certain about it. Furthermore, House is not convinced that the discovery of “truth” is beyond our grasp.

He cites advancements in understanding the physical and biological sciences as proof that we have been successful in explaining reality. House also appeals to our intuition by pointing to our understanding of the human body, an understanding that has dramatically improved over these past two centuries. In positing that we do not understand the human body any better than we did 200 years ago, one would be hard pressed to find supporters. It is not that House rejects the notion that our understanding of the world (scientific or otherwise) might be wrong. Rather, in certain cases where hypotheses have been wholly corroborated by rigorous studies, House questions the plausibility of our being wrong. I tend to share this skepticism with House. For illustrative purposes, imagine telling an oncologist that the condition we call cancer might not be the result of uncontrollable division of malignant cells. I acknowledge that my general description of cancer may be an overly simplistic account, but this should not detract from my point. Even if current scientific understanding of cancer represents only part of the picture of the true mechanism behind the disease, what experts have come to illuminate is likely going to be supplemented as opposed to being discarded by new findings.

Considering the context of the origins of pragmatism, I tend to find the aforementioned objection to pragmatic epistemology particularly dissuasive. It is possible that this point of critique seems so conspicuous to us today because of the distinct outlook we possess as world citizens in the year 2011. Simply put, our knowledge base has considerably expanded which is largely attributable to exponential growths in technological sophistication. It is conceivable that we are more confident today with our understandings of the world than people were at James's time because of modern technological tools that are now available equating to amplified precision and depth.

Perhaps James's skepticism in our ability to know when we have discovered truths conflicted to a lesser degree with his worldview created by the circumstances of his time. Thus, we must refrain from accusing James of failing to make his views compatible with the apparent reality of the world. Indeed, his pragmatic views may have fit more neatly into his lived experience than in ours.

Although the preceding paragraph sheds some light on what might have prevented James from being more critical about his skepticism, it is not meant to imply that we should accept his epistemological viewpoint. Evidence today seems to greatly contradict his suggestion that the current knowledge base might not be of higher accuracy, breadth and detail relative to that of our predecessors. The sciences have come a long way in providing detailed accounts of human beings and the world around us. As found embedded in rhetoric used by pragmatists, our notions and concepts must endure testing and jibe with our real-world experiences and observations. Ironically, this line of reasoning compels me to give up the epistemological nuts and bolts of pragmatism and focus on the methodological approach of pragmatic ethics. This supports my adoption of freestanding pragmatism that is pragmatic in nature but can be understood independently from pragmatic epistemology. I will demonstrate below how freestanding pragmatism suits my endeavors in this study.

Pragmatists claim that we must give up on seeking "a God's-eye point of view" of the world because not only is such a view impossible (Putnam, 1990) but it also is fruitless when it comes to our needs and practices (Rorty, 1990). Does the claim itself that we are not able to know when we have acquired a God's eye view not necessitate a God's eye view of the human race? Is this not a paradox? I believe so. After all, the

proposition presupposes that as human beings we are unable to view the world around us impartially and objectively and that doing so would not be useful for our needs.

As an extension to this critique, I believe that examining the effects of the pragmatic belief of certainty on the relative value of basic and applied research might shed some light on an inherent weakness of pragmatism. When thinking about how the pragmatist believes our investigative efforts should be directed, I do not think it would be a mischaracterization to say that applied research is of much higher importance to the pragmatist than basic descriptive research. This seems to be implied by the notion of utility and the preference of searching for what is useful for our practices versus what is “true.” However, a certain level of basic knowledge is required in order to conduct and generate applied research. Simply put, the two go hand in hand. Moreover, what is useful is often (but not always) dependent upon descriptions of external reality. This can be demonstrated by applied research in the cardiac sciences. For instance, the aspect of research that seeks out treatments for a cardiovascular condition known as atrioventricular fibrillation would rely on descriptive basic knowledge of the anatomical and electrophysiological functions and mechanisms of the heart. As illustrated in this medical case, useful or applied knowledge depends on descriptive or basic knowledge. However, pragmatists might still be able to redeem themselves by agreeing to an explicit and qualified statement such as, attempts to describe external reality may be acceptable insofar as they are helpful to our uses.

According to House (1992), the pragmatist claim that searching for “reality” is misguided does not necessarily follow logically from the idea that absolute certainty in our knowledge of reality is impossible. He also questions why we should insist that

external knowledge is impossible to recognize without doubt once we have acquired it. House poses some excellent rhetorical questions on this matter. For example, why must we completely relinquish all searches for explanations of reality merely because we cannot be one hundred percent certain that these explanations accurately describe reality? In the words of House:

Why make such an extravagant demand that we be absolutely certain or abandon the search all together?....Scientists are aware there may be better explanations soon, but this does not stop their highly successful pursuit or convince them that there is no real world or that there is one but it is unknowable. They may be wrong, in fact, are certain to be wrong in many cases. From this viewpoint, pragmatists seem overly pessimistic about the possibility of explaining the world...we do know more about some things than we did a few hundred years ago. (p. 18)

Freestanding Pragmatism

Overview of a Freestanding Approach

During the 1940s and 1950s, pragmatism much like progressive liberalism began to be viewed as overly optimistic and naïve in light of the tragedies the world witnessed during times of depression and war (Dickstein, 1998). This led to a decline in interest with pragmatism. However, since then, there has been a revival in interest in this area of philosophy. In more recent years, Rorty and others have contributed to evaluations of different versions of pragmatism that have come forth following the inception of the original ideas of its founders. Starting in the 1990s, theorists began to formulate a methods-based paradigm for both legal and bioethics research and practice (Hester, 2008). These proponents advanced arguments for grounding bioethics and legal practice

– two unavoidably “applied” fields – in induction, experimentation, fallibility, as well as other pragmatic characteristics without demanding reference to classical or neo-pragmatists and the “canons” or theoretical ideas that correspond with them. Today, this approach is known as *freestanding pragmatism*.

To reaffirm, the recent revival of pragmatism can largely be attributed to the emergence of freestanding legal pragmatism as well as pragmatic bioethics. The former attempts to use law for social change. In his paper, Grey (1998) asserts that pragmatism within legal theory can and should be understood independently from the metaphysical and ontological assertions that comprise its philosophical roots. In other words, one does not need to commit to pragmatic propositions about truth or an external reality in order to apply the method of pragmatism to legal theory. Grey convincingly argues that legal pragmatism can stand free of philosophical pragmatism partly because it must be practical in a way that philosophy is not. In philosophy, “it is enough that a question should provoke wonder or curiosity, and should lead on to interesting arguments, explanations, or speculations” (Grey, 1998, p. 265). In fact, a pragmatic atheist who claims that human beings can never know for certain whether what they have discovered accurately reflects external reality can still agree on pragmatic legal theory with a religious individual who has no doubts that his or her beliefs truly represent external reality. This can be illustrated by a case where Jehovah Witness parents refuse a blood transfusion for their son who will die without it because of their religious convictions. In this circumstance, the beliefs of the patient’s guardians interfere with the medical profession’s value of beneficence that suggests that the physician should do what is necessary to heal the individual. In assessing this situation, a pragmatic atheist and a

Jehovah Witness might settle on highly different solutions to this problem even though they might both agree on the use of pragmatic methodology in approaching the issue.

Regarding pragmatically informed legal theory, Grey (1998) says that “...nothing in it is incompatible with belief in a transcendent God who rules over a creation in which human beings, though fallen, may know absolute truths” (pp.169-170). While this is the case for legal theory, the same cannot be said about philosophical pragmatism. If one believes without doubt that God exists, he or she cannot also believe in the pragmatic philosophical canon that external reality is unknowable to the human race or that humans are incapable of knowing when their beliefs or descriptions truly reflect external reality.

Legal pragmatists hold that one grand theory cannot capture all that is important in the law in all its complexity and that theory should not be imposed onto practice from the top down (Grey, 1998). Instead, theory should *guide* practice throughout a process investigating whether the intended enhancements have taken place and what unforeseen positive or negative effects have occurred. The same approach can be adopted in applied ethics. Generally, a pragmatic approach to law is one that is *contextual* in that it is informed by practice and custom, and what is considered *instrumental* because it aims to advance the human good of the community. For example, justice often represents the human good that the legal profession aims to advance. Lastly, legal pragmatism is *antiformalist* in the sense that it prioritizes consideration of the outcome over logical consistency of absolute principles.

To more thoroughly understand freestanding pragmatism, the distinct branch of pragmatism that will support my analysis, I will refer to the six distinct features of freestanding pragmatism described by Arras (2001). To reiterate what was introduced in

my first chapter, the following six features will guide my process of ethical problem solving: 1) contextualism, which implies that concrete as opposed to abstract examples will be used in moral problem-solving, 2) instrumentalism, which means that I will focus on practical effects on prominent values, 3) eclecticism, in the sense that I will be using more than one source of values in ethical analysis, 4) theory independence in that I will avoid breaking the issue down into components in the formulation of a theory, 5) reflective equilibrium, which refers to the fact that I will be engaged in a constant reexamination of my assumptions to maintain consistency with respect to the judgments I will be making, and 6) search for consensus so as to integrate alternate points of view during moral problem-solving.

Addressing Concerns with Freestanding Pragmatism

In addition to freestanding legal pragmatism, bioethics is a field that has also contributed to the contemporary resurgence of pragmatism. Regarding the six central features of freestanding pragmatism, Arras (2001) states that they are much too general and already infused in different approaches to bioethics. He uses these two points of criticism to suggest that freestanding pragmatism brings nothing completely novel or unique to the table. More specifically, Arras claims that because appealing to alternative approaches can support the features of pragmatism, pragmatism is not needed. However, the aforementioned premise does not automatically lead to the inference that pragmatism as an approach should be ignored or dismissed all together. If this were the case, any approach that possesses commonalities with others ought to be disregarded since alternative approaches can be employed in its place. I might be convinced of eliminating one of two approaches that promote identical sets of features; however, in light of the fact

that pragmatism assembles a unique constellation of traits represented in freestanding pragmatism's six central features (Schermer & Keulartz, 2003), its worth is certainly justified.

In response to the second attack on (freestanding) pragmatism, namely that the features of pragmatism are already inscribed in other approaches to bioethics, Hester (2003) argues that this should be viewed in a positive light as a sign of its success in becoming used as a philosophical foundation. In fact, pragmatism's manifestation in many practices of modern (American) society can be acknowledged as Dewey's final legacy. The fact that these features have been largely engrained into the inner-workings of society supports the use of freestanding pragmatism in particular and the idea that we do not need to explicitly refer to Dewey or other classical pragmatists for that matter.

Although Hester (2003) recognizes that a deep understanding of the ideas of classical pragmatists can be helpful to the practice of pragmatic bioethics, he states that explicit reference to pragmatic theory is rarely if ever needed. Classical pragmatic philosophers share a core belief that inquiries should aim to achieve practical benefits for people in their daily lives (Brendel, 2003). It is interesting to note that pragmatism itself endorses the contention that we should be "freestanding" from appeals to (its) potentially dogmatic philosophical theories or principles. A revered quality of freestanding pragmatism lies in its avoidance of the fallacy of relying on appeals to a body of experts or authority, as would be the case if it relied predominantly on the ideas of the founders of pragmatism for support. Freestanding pragmatists can cite these ideas, but only insofar as they assist in formulating cogent philosophical arguments. The emphasis of

freestanding pragmatism should be on the pragmatic ideas surrounding the method and immersion in the factual details of the problem itself.

With that said however, it has been argued that the features of freestanding pragmatism understood “independently” of the philosophical theories of pragmatism give the impression that the list of features is not logically assembled. On this matter, Hester (2003) purports that the thoroughly thought out theoretical ideas behind pragmatism, particularly the notion of inquiry, represent the “glue that holds together this unique addition to bioethical theory and practice” (p. 558). I concur that no reference to the underlying philosophical concepts could lead to confusion and ambiguity regarding the need to uphold the guidelines of freestanding pragmatism. This is why, for my case, I disagree with a totally freestanding approach to pragmatism that leaves no room to supplement it with an understanding of the ideas that gave rise to its emergence.

Theories are useful in so far as they can be helpful in a practical context (Tollefson & Cherry, 2003). For my purposes, I am adopting the freestanding approach but I have also demonstrated the philosophical origins of freestanding pragmatism. I have done this in order to defend against critics such as Arras who claim that freestanding pragmatism is merely a movement that advocates a miscellaneous jumble of characteristics whose connections with one another are undefined and vulnerable to attack. It is only to address this potential counterattack on my freestanding pragmatic approach that I have consulted pragmatic philosophy. Hence, while I have examined philosophical pragmatism in order to inform and defend my ethical analysis, I will avoid being constrained by an emphasis on the epistemological and metaphysical roots of pragmatism while performing my ethical analysis. Still, I recognize that citing

philosophical pragmatic concepts and theories might make my study vulnerable to the claim that it is not completely or truly “freestanding.” I am not concerned with such challenges. A true pragmatist would encourage one to use the pragmatic approach as a guide that can be reshaped and altered based on sound lines of reasoning. My ethical analysis will be based on my interpretation or version of freestanding pragmatism that may or may not make reference to its antecedents.

Thus, in order to convince others that freestanding pragmatism is not founded on poorly connected features or attributes, I will explain the philosophical theses, or more accurately antitheses, that form pragmatism. These antitheses – *anti-foundationalism*, *anti-essentialism*, *anti-dualism*, and *anti-skepticism* – reveal the ties between the six distinct features of freestanding pragmatism. Schermer and Keulartz (2003) ascertain that contextualism, eclecticism and theory independence can be traced back to anti-foundational and anti-essential ideas or separation from fallacious appeals to dogmatic philosophical theories. To echo the words of Grey (2008), pragmatism emphasizes the importance of outcome over logical consistency of absolute principles. The emphasis on searching for practical resolutions gives rise to instrumentalism.

Understandably, when it comes to issues of morality or ethics, many would be dissatisfied with an equivocal description of pragmatism’s instrumentalism that simply turns to the common pragmatic rhetoric that we should aim for what works or produces the best outcome. Such an account of instrumentalism leads one to question the sense or context in which we should understand the term “works?” What criterion, if any, does pragmatism offer to measure and compare its solutions? For example, a utilitarian approach determines solutions by assessing the effects on overall happiness while

deontology dictates ethical decisions by considering moral obligations and duties. But for pragmatism, there appears to be no moral standard in instrumentalism. Schermer and Keulartz (2003) consider the central objective of decision-making in pragmatic ethics to be based on what leads to peaceful and cooperative living and working together. To be sure, such conditions foster productivity in society.

The abovementioned antitheses of pragmatists reveal that they oppose four principles. They are against foundationalism, essentialism, dualism, and skepticism because they see these principles as complicating the attainment of an effective solution or adequate consensus with respect to a problematic matter. In other words, these notions stand in the way of acquiring fruitful cooperation. Foundationalism and essentialism do this by their excessive concerns with transforming everything into abstract or general terms when in fact reality requires flexibility and consideration of particular conditions and context. It might be help to consider the following analogy that demonstrates the virtue of a flexible versus rigid theoretical approach.

A current bioethical issue that can be linked to the issue at hand concerns the judgment of whether or not it is acceptable to expose healthy children to the risks of clinical research (Fisher, Kornetsky, & Prentice, 2007). This relates to our ethical question regarding whether we should object to the use of a therapeutic intervention that has been designed to treat a disease in order to enhance the athletic performance of healthy children. An alternative approach that may have been used to assess this issue of gene doping is *moral absolutism*. From an absolutist viewpoint, one could maintain that it is never ethically permissible to genetically enhance healthy children if it imposes greater than minimal risk. In concert with this type of absolutist perspective, U.S. federal

regulations governing clinical research ethics strictly exclude healthy children from participating as research subjects unless risks that are significantly greater than minimal are absent or the intervention is likely to be directly beneficial to the participant (Shaw et al., 2004).

In contrast, a pragmatic perspective promotes consideration of the ethical values as guides, as well as a realization that context is crucial to resolving ethical dilemmas. Thus, a pragmatist might deal with this ethical situation by considering conditions beyond direct benefit and risk to the participant that could potentially justify the inclusion of children in research in particular cases based on the values he or she aims to promote. To relate this back to my research, I will treat the values I have chosen as guides which are subject to limits due to contextual circumstances and predictions of likely consequences of alternative decisions and actions. Pragmatic research ethics will be invaluable in the challenging process of attempting to compromise between competing objectives. A pragmatic approach will be used as I attempt to assess consequences and their effects on values in practical contexts of sport, as well as moral tradeoffs.

Similarly, dualism hinders productive solutions by imposing an oversimplified view of the world where entities are figuratively categorized into one of two groups, black or white, with no respect for potential gray zones. This tendency prevents debates from getting very far when there are differences in opinion and no starting points for agreement. The contextual nature of pragmatism allows for the avoidance of false dichotomies between domains or terms such as “science” versus “ethics.” Pragmatists also oppose skepticism because constantly questioning everything impedes moving forward, working through real problems and addressing our needs.

In addition, pragmatists care deeply about fruitful cooperation and peaceful cohabitation. This leads them to be concerned if the process of moral inquiry in ethics fails to promote a democratic value or does not consider the say of all whom are affected by the problem. In order for the process to be fair, all moral arguments must be given due consideration. Current practice in bioethics discourse fails to adhere to the democratic concerns of pragmatic ethics. For this reason, Schermer and Keulartz (2003) feel that Arras (2001) misses an important characteristic of the pragmatic process that contributes to his mistaken belief that pragmatism has nothing novel to add to bioethics.

My approach to the ethical issue at hand will entail confrontation of both extreme sides of the gene doping debate as well as more moderate or reserved views on the matter. So, in this sense, I will employ a democratic approach. However, it could be argued that a more comprehensive pragmatic process of ethical inquiry would not solely seek out the perspectives of sport governing bodies and academics who have formally studied gene doping. The views of the public, the fans and athletes also need to be included in the decision-making process. One aspect that is important to pragmatic ethics discourse is to establish procedural conditions that ensure that all relevant arguments are fairly represented and considered. Furthermore, an argument could be made supporting a priority scheme in which the opinions of athletes hold the greatest weight since they are the ones most directly affected by the integration or prohibition of gene doping practices in sport. It seems intuitive that the voices of coaches, medical staff, organizers and fans also get heard in determining the way in which this issue is dealt. This would permit the moral decision to be made based on the “better” argument – that is, more convincing and

more persuasive and not which argument was more visible because more power or money was backing it.

In addition to ensuring fair representation of arguments and perspectives, Schermer and Keulartz (2003) state that applied pragmatic ethics can include the following tasks: providing arguments, critically assessing and modifying arguments or even entire vocabularies and discourses, exploring and describing moral worlds that could possibly emerge in the future as well as working with heterogeneity of world views. One way to deal with heterogeneity in opinion could be to search for consensus or compromise but this does not always have to be the goal sought through applied ethics. According to Schermer and Keulartz, the pragmatic bioethicist should select which task(s) to undertake by examining the nature of the moral problem being addressed in addition to the particular context in which it occurs. The entire process should be informed by the ultimate purpose of encouraging productive and cooperative living and working together.

A couple of pragmatic features that have not already been discussed have been posited by Schermer and Keulartz (2003) as essential attributes of pragmatism that, when added, contribute to its pertinence and usefulness to bioethics as well as other areas of applied ethics. These two elements that have particular relevance to the issue I am analyzing include a consideration of the moral implications associated with the simultaneous evolution of society and technology in addition to a focus on harmonious living and working together as a moral standard. Ever-changing technologies constantly bombard us with social problems that could conflict with our living and working together. It has been suggested that a pragmatic approach represents a valuable guide that

clinical research ethicists and bioethicists can follow. The reason for this is that a pragmatic approach can help them as they attempt to prioritize and uphold values of advancing medical technology to enhance the human condition and simultaneously protect human rights of those involved (Patton, 2002). This two-fold goal can be likened to my quest to protect the positive values of sport and protect the rights of participants from potentially harmful technological practices while promoting those technological practices that enhance or endorse those values or rights. Pragmatism appreciates the creativity that is required in order to produce appropriate solutions to these kinds of problems. It is “bottom up” in the sense that pragmatic moral thinking is highly context-dependent and is generated as a response to particular dilemmas (Brendel & Miller, 2008). Thus, pragmatism will help me to meet the challenge of integrating seemingly conflicting valued goals, such as the protection of human rights and scientific discovery and progression. This can be exemplified in clinical research ethics where the goal of advancing medical science must be limited so as not to threaten the rights and well being of research participants.

While protecting research subjects is of grave importance, clinical research ethicists have been criticized for tending to neglect giving sufficient consideration where it is due, namely the ethical value of scientific investigation. The trouble with solely considering protection of human subjects can be illustrated by a hypothetical setting in which the demands on research are so strict that no risks can be posed to subjects without the potential to obtain medical benefits (Emmanuel, Wendler, & Grady, 2000). This kind of perspective in clinical research would fail to consider the ethical significance of all consequences for human welfare. For instance, in addition to considering the

consequences of conducting the research, a pragmatist view would hold us accountable for considering implications of *not* conducting the research as well. Therefore, with respect to my particular research questions, I must emphasize that it is just as important to consider the implications of having policies that restrict gene doping in sport as it is to reflect on the consequences of permitting this kind of doping.

An illustration of freestanding pragmatism that fails to account for all the abovementioned features highlighted by Schermer and Keulartz (2003) as pertinent characteristics of pragmatism is incomplete. Acknowledgment must be made to freestanding pragmatism's recognition of the ever-changing technologically based culture in which we live, the significance it attributes to fair and democratic decision making protocols and its focus on heuristics and creativity for solutions. If a version of pragmatism that pays tribute to these features is provided, it becomes clear that freestanding pragmatism is indeed a useful and novel approach to applied ethics.

Chapter Three

A Clarification of the Three Values

Introduction

I consider utility of courses of actions to be the single most important feature of pragmatism. The utility of a particular course of action is assessed on the grounds that that particular action is useful in promoting a desirable community. Given that individuals can dramatically differ in their ideas regarding what constitutes a desirable community, it is imperative that I clearly define mine to the reader. The particular values I have chosen that reflect my notion of a desirable community appear to be very closely related to the issue and will impact the decision of whether we should permit gene doping and welcome the introduction of transhuman athletes in sport. By examining the probable consequences that philosophers have argued may result in the event that gene doping is practiced in sport, I have selected three values that would be affected as a result of these consequences, namely fairness, autonomy and the concept of what it means to be human. In my introductory chapter, I defended my choice of these three values because of their apparent relevance to this issue. In my concluding chapter, I will return to an assessment of the utility of these three values in formulating an adequate resolution to the problem in question. Ultimately, it will be left to the reader's discretion to decide whether or not these values should hold precedence in decision-making on this matter. For now however, this chapter marks the first step of my pragmatic ethical inquiry, which involves deciphering the relevant values belonging to the type of community I feel is most desirable.

As already described in my introductory chapter, I will provide a comprehensive exposition of each of the three values starting with fairness. I will primarily consult Rawls and his notion of fairness (1958) while tying in as I see fit the conceptualizations of fairness in terms of access and sport as a competitive endeavour. Sport philosophers who discuss fairness will be cited from time to time including Lenk (2007) and Loland (2009). Autonomy will then be described with support from Kant's moral understanding of autonomy. In addition, I will return to the works of Tamburrini (2005), van Hilvoorde (2005), and Sherwin (2007) in order to disinter notions of autonomy in sport. The concept of what it means to be human will be the third value that I will illustrate. I will portray the different perceptions of human nature that are outlined by Murray (2009). The aim here will be to determine whether it is feasible to suggest some universal features that are shared by all of humanity and if so what they are. To summarize, the kind of community I propose will be most useful when considering the ethical issues that may ensue with the prospect of gene doping athletes in sport is one that upholds the value of fairness, autonomy and the concept of what it means to be human. In the manner just described, I will now turn my attention to defining each of these three values.

Disclaimer

Before I commence, I must be clear with the reader that I have relied almost exclusively on online encyclopedias in order to understand seminal works in philosophy on fairness and autonomy. Specifically, I have not read Kant's (1785/1964) *Groundwork for the Metaphysics of Morals* or Rawls's (1971) book *A Theory of Justice*. Thus, any reference I make to either of these two sources has emerged from the secondary accounts of Internet encyclopedia sites.

Fairness

An Overview of Rawls's Notion of Fairness

The concepts of fairness and justice are applicable to all social institutions within a wide range of domains that surely include sport. Naturally, sport philosophers refer to the work of John Rawls and his highly influential notion of fairness in their explorations of ethical issues in sport. With respect to their arguments on performance enhancement, Lenk (2007) and Loland (2009) are important examples.

John Rawls (1958) defines fairness because he believes that it makes up a fundamental idea within the notion of justice that he attempts to address. First, Rawls superficially describes fairness as “right dealing between persons who are cooperating with or competing against one another” (p. 178). He elaborates on this general definition by asserting that fairness can be a feature of games, competition, bargains or any activity in which individuals voluntarily engage and do not possess authority over one another. The rules that constitute the activity or practice and the allocations of benefits and burdens incurred through involvement in it are established and accepted by the participants themselves.

It follows from this that fairness is called into question if any participant feels as though he or she is being shortchanged or coerced into acknowledging an expectation that he or she does not perceive as legitimate or reasonable for any person to acknowledge. Therefore, a fair practice or activity must adhere to the claims or principles held to be acceptable by the members that are involved. In Rawls's (1958) words, “A practice is just or fair, then, when it satisfies the principles which those who participate in it could propose to one another for mutual acceptance” (p. 178). The principles that are

reasonably expected of all individuals involved in the activity can be appealed to if the fairness associated with the practices is in question at any point. Therefore, a distinguishing feature in the type of scenario in which fairness can be an issue is that persons voluntarily agree to impose on themselves and each other particular expectations regarding conduct and interaction with one another. Rawls argues that if the members of the group do not freely agree upon and accept the terms and conditions that guide their practices with one another, formation of a true sense of community is impossible.

At this point, one might be wondering what if any difference lies between the terms justice and fairness. Rawls (1958) describes justice and fairness as ostensibly being one in the same but digs deeper to discover what distinguishes them from one another. His analysis results in the affirmation that the term justice is more applicable to practices where the aforementioned choice to participate is inexistent. Rawls provides slavery as an example to demonstrate a case where choice might be absent. This is in contrast to practices including business competition and games which Rawls states are settings in which it makes more sense to discuss fairness. Using this line of reasoning, fairness rather than justice is the more logical choice when discussing practices in sport. This is true at least for adult participation in sport but what about if we are discussing sport practices in the context of youth athletics? Perhaps when it comes to minors, the use of the term fairness is less applicable if participation is the choice of a parent or authority figure. Regardless, since there is considerable overlap between fairness and justice, both terms will be examined.

Rawls (1958) describes a hypothetical situation where individuals have freely agreed upon the rules that constitute a practice or transaction and have accepted them as

fair. He asserts that once individuals have entered into this so-called transaction, they then have a duty to uphold the rules that they have accepted. This will likely mean that they must restrain their conduct in some way. And it goes both ways. If a person has complied with the rules, he or she has the right to the assent of those parties who have gained benefits due to his or her adherence. It would be unfair to that person in the event that some individuals were to acquire the benefits without paying their own dues so to speak. What Rawls appears to be arguing can be understood as the notion of tacit consent whereby an individual implies that he or she accepts a practice along with its terms and conditions by accepting the benefits associated with it. Tax evasion and failing to pay one's union duties represent examples offered by Rawls where individuals unfairly relish in the benefits associated with practices without incurring the corresponding burdens. According to Rawls, having to accept the burdens if one accepts the benefits associated with a practice does not embody a categorical rule since there may be exceptions that would not demand that one complies with the rules. For example, if the costs of union duties are excessively high and the establishment is not doing its job in advocating for employee rights, an employee might be justified in withholding payment to the union.

Generally though, a person must declare his or her discord with the practice ahead of time and not just at the arrival of one's turn to uphold his or end of the deal (Rawls, 1958). Furthermore, one should also try to eschew reaping the benefits gained through the practice if one does not intend to adhere to the rules. Rawls depicts these duties as forming the notion of fair play and acknowledges that speaking about fairness in this respect goes beyond common notions of fairness. He holds that one does not merely need to uphold rules in order to act fairly. Unfair acts typically refer to exploiting situations

perhaps through any potential vagueness inherent in rules even if no rule was actually broken.

Rawls (1958) describes fairness as a feature the presence or absence of which is often questioned based on sentiment. In other words, participants might describe a feeling that the terms of a practice treats them unfairly. According to Rawls, an undertaking that would be correctly characterized as acting unfairly is demanding the enforcement of a rule in circumstances that do not justify such enforcement because it is advantageous for that person. Perhaps this might be illustrated by an example in sport where one athlete demands the testing of a formidable opponent. The Australian Sports Anti-Doping Authority has set up an online protocol and a confidential hotline where athletes or others can report an athlete, team, coach, medical personnel or other person whom they suspect has been involved in doping. People are able to submit information about a reported incident while remaining anonymous if they so choose. Although the conditions of testing are normally random, an athlete can claim that he or she has reason to believe that his or her opponent is cheating. However, the real reason behind the request for testing is the athlete's knowledge of his or her opponent's use of cough medicine that he or she knows could be confused with a prohibited substance because of limitations associated with testing procedures. In this case, the athlete who requests testing can be rightly accused of attempting to frame his or her opponent which surely treats that person unfairly.

Moreover, another unfair act could be avoiding detection due to particular circumstances that do not allow for effective enforcement of a certain rule (Rawls, 1958). For example, a professional athlete that gene dopes today despite WADA's rule against it

would be taking advantage of the placement of this rule at a time when detection measures to enforce the rule do not yet exist. In broader terms, acting unfairly might comprise acting in a way that opposes the intention of a practice. A concrete example that illustrates this abstract notion of acting unfairly is a professional athlete who dopes while using masking agents to avoid being caught and accused of violating bans on doping. In this way, such an athlete would be acting contrary to the purpose of such a rule that seeks to protect the structural goal of sporting competitions today. Loland (2009) describes this goal as comparing competitors with one another based on their performance of relevant skills while they adhere to the rules. At this point, I could of course critique this apparent purpose of sporting competitions and divulge my own sentiments but I will refrain from doing so as defining the three values as they relate to my ethical analysis is my immediate concern for this chapter. However, discourse concerning the purpose of sporting contests will likely be recalled in a later chapter.

Regarding fairness, Rawls (1958) depicts fair play as a *prima facie* duty or an act that generally tends to represent a duty. As evident by the term “generally,” Rawls states that there are exceptions to imposing *prima facie* duties as opposed to the common sense understanding of duties. This contextual sense of duty is undoubtedly suitable for my pragmatic perspective. Moreover, a *prima facie* duty is a particular act in certain circumstances that makes it the right thing to do in that instance. Fidelity and gratitude are also *prima facie* duties. What these acts have in common is that they demand restraint in conduct that might at times hold back individuals from performing acts that would yield results that are most advantageous to that individual. According to Rawls, such actions would be contrary to those endorsed by a strict rational egoist where one solely

seeks out his or her own interests. But Rawls maintains that acting in a way that is at times contrary to one's interests is a natural effect of participating in a practice guided by a set of rules that one has perceived and accepted as fair and from which one has received benefits.

I would describe such setups where people agree to sometimes act in ways that appear to oppose their own interests as “give-and-take” compromises that are intended to bring about the best possible arrangement for all people involved. These arrangements not only consider the immediate concerns of individuals but their future interests as well. To justify the presence of such arrangements, it is helpful to consider the product of each person simply acting as he or she pleases without regard to any one else's interests. In one instance, you might benefit greatly from acting with sole regard to improving your own situation but you could lose all of what you have gained and more when a person doing the same crosses you.

One can think of examples where these situations are set and created by certain parties. For example, political alliances between nations create conditions where each country involved agrees not to attack or harm any of the other participating nations' interests. Such a setup is designed to protect each party and allows for mutual cooperation to achieve similar aims and interests. Generally, it is in the interest of a nation to engage in an alliance, however there are times when such an agreement might prevent a country from acquiring considerable benefits.

Let us elaborate on this example with a hypothetical situation involving three countries – X, Y and Z. In this example, country X and Y are joined by an alliance with one another that forbids country X from purchasing the petroleum or oil of country Z (an

enemy of country Y). If country X supports country Z by buying its oil, it is feared that the money accrued through the oil industry will be used by country Z to fund the development of unprecedented state-of-the-art military technology and arms that would annihilate country Y. However, country X is in a state of economic depression and country Z sells oil for a much cheaper rate than all other exporters of oil. In fact, the average amount of money that each citizen of X spends on oil if it is purchased from any country other than country Y is excessive and significantly reduces the average annual expenditure country X citizens devote to establishing, expanding and investing in businesses and spending on domestic goods and services.

Thus, because of country X's agreement with country Y that obstructs a main channel through which country X could refuel its economy (no pun intended), country X is forced to remain in a state of economic depression. Despite this drawback associated with country X's alliance with country Y, it still might be in X's overall best interest to maintain its agreement with Y. For example, country Y might have agreed to use its own unmatched intelligence and military resources to aid country X in the case of any attacks on country X that would make country X's economic depression seem not so troubling at all. Thus, while the leaders of country X might be perceived as opposing country X's interests, it is a more accurate characterization to state that they are merely prioritizing them.

Aside from the way compromises that are manifested through fair play arguably serve the best interests of those involved, Rawls (1958) attributes a deeper and perhaps nobler reason to demonstrate this kind of conduct. Rawls points out that acting fairly by constraining one's actions is a kind of conduct that shows that an individual

acknowledges others as persons sharing similar feelings and interests. This seems to represent what we commonly refer to as empathy. Sympathy or compassion are distinct from empathy in that the former terms refer to the desire to alleviate another person's suffering whereas empathy need not as it is simply the recognition or understanding of another's feelings as being similar to one's own (Wispé, 1986). Thus, feeling empathy is seemingly necessary for acts of sympathy or compassion.

Rawls states that in order to recognize others as persons with whom we share similar feelings we must recognize and act in accordance with the duty of fair play. He claims that this parallels the argument that for a person to acknowledge the suffering of others, he or she must at some time or other help or want to help a suffering individual or person in pain. Similarly, the duty of fair play revolves around the mutual acknowledgment of the aims and interests of others involved in the practice and ultimately displays recognition of other individuals as persons as opposed to mere obstacles that stand in the way of achieving one's objectives. Clearly then, the manner in which a person treats others reveals how he or she views them – as persons or conversely as obstacles that stand in the way of acquiring his or her own desires. Based on this reasoning, Rawls asserts that, in general, recognizing *prima facie* duties including fair play as well as accepting principles of justice depicts one's treatment of others as persons with similar interests, capacities and feelings. In terms of sport, athletes at the very least must share an interest in all participants including themselves adhering to the rules.

To summarize, Rawls (1958) describes a just practice as one where the principles that dictate the expected actions of all individuals involved are upheld. These principles must be ones that would have been committed to without knowing the details regarding

one's status or condition at the time the principles and rules are applicable to one's actions. The original position is the name Rawls attributes to this perspective whereby one decides on principles of conduct without knowing one's particular circumstances. This will be elaborated on later but for now it is sufficient to say that Rawls believes that this perspective permits the rules that are decided upon to be fair for all without prejudice.

As already alluded to earlier, if a person acquires the benefits associated with a practice and deems it to be fair, he or she relinquishes his or her freedom to base decisions and actions in certain situations purely on self-interest. In that event, the duty of fair play must be adhered to so that the rules are maintained. It is also important to point out that you must be able to complain about rules you do not perceive as fair and the rules themselves cannot be incompatible with justice. Moreover, the claim that in order for a practice to be just even unjust rules that constitute the practice that have been deemed to be acceptable by the participants must be adhered to makes no sense at all from the viewpoint of justice as fairness. Yet other ideas besides fairness that have been used to define justice such as those based on classical utilitarianism fail to discredit some unjust rules.

A recent example in sport displays the importance of being able to challenge rules one perceives as unfair or unreasonable discrimination. An international court case that was initiated by Oscar Pistorius, a runner with two prosthetic lower limbs, in an effort to repeal the ban enforced by track and field's international governing body that prohibits athletes with carbon-fibre prosthetic legs from competing alongside able-bodied athletes. This case resulted in a ruling that permitted Pistorius to compete in the 2008 Olympic

Games provided that he qualified. The claim that Pistorius's legs make his running more economical and thus provide him with an unfair advantage was ascertained as being based on insufficient evidence and unfairly administered lab tests. For instance, the researchers were directed by the international governing body of track and field to solely study the fastest segment of Pistorius's run. Clearly, having channels such as the legal system available for participants to challenge unfair or unjust rules or protocol based on reason is essential to ensuring fairness of practices.

Defending Rawls's Notion of Fairness by Critiquing an Alternative Conception

This provides a suitable segue to Rawls's comparison of his concept of justice as fairness with the classical utilitarian conception of justice. For this comparison, Rawls (1958) refers to the ideas of Jeremy Bentham and Henry Sidgwick in their classical utilitarian thoughts on justice. The heart of utilitarianism is its emphasis on maximizing utility, which can be understood as happiness or pleasure as opposed to pain and suffering. General happiness is the sum of all individual functions of utility where each individual is weighed equally.

Although on face value one might think that the utilitarian advocacy for equality appears to have the same effects as do the principles of justice, Rawls (1958) argues that this is not the case. Rawls alleges that this alternative account of justice has flaws that are avoided by his definition of justice through the concept of fairness. To start with, the classical utilitarian notion of justice reduces the quest for justice to a search for the most efficient framework that produces general welfare. Utilitarians view principles of justice as the most important features of social institutions and advise that they are handled with the utmost care because of the huge impact that they have on us due to facts of human nature. Classical utilitarians base decisions concerning the justice of a practice on the

distribution of benefits and burdens to individuals that results from the allocation of rights and duties dictated through the practice throughout the course of its existence. Moreover, the aggregate satisfaction of desires of individuals is the criterion used to determine how to structure practices and assign resources so that they are in accordance with principles of justice as typically seen in the health care system.

An objection to justice in this sense is the common accusation that utilitarianism focuses on the ends while minimizing the value of the means that are used to reach them. Specifically, the understanding of justice captured by classical utilitarianism attempts to emit the general welfare but in doing so in some cases might permit practices that people would otherwise find morally repugnant. This is based on the fact that nothing prohibits the utilitarian from accepting circumstances if it can be argued that the allocation of rights and duties gives rise to the most happiness for the most people (Rawls, 1958). Positive value is attributed to the satisfaction of a desire or interest regardless of what that desire is or what claims are required by pursuit of that desire. For example, if a CEO of a corporation wishes to minimize the company's expenditures in order to increase the company's value for stockholders, satisfaction of this end would be positively viewed from a utilitarian perspective. Furthermore, if the means that the company uses to minimize its expenditures is significantly underpaying its employees, the burden placed on the workers would factor into the equation but would not discount the value of the satisfaction of the CEO's desire. Executive decisions are to be made by ideal executive legislators that are external third parties and should maximize the value of utility in satisfying the interests of those involved.

A more powerful example offered by Rawls (1958) might be more effective than my example above in revealing the problem with classical utilitarianism as a foundation for principles of justice. According to utilitarian ideas, slavery is considered unjust solely because the benefits incurred by slave owners are disproportionately less than the disadvantages it brings to slaves and society. On the other hand, Rawls claims that his conception of justice as fairness would give no credit to the advantages derived through slavery to the slave owner. Thus, from his perspective, determining the justice or lack thereof of slavery would not be an issue of determining whether the advantages of being a slave owner outweigh the disadvantages of being a slave. Rawls admits that there might be reasons for slavery in certain circumstances. For example, slavery might be rooted in tradition and in one instance is impossible to completely abolish until it is gradually taken a part piece by piece. Such reasons however are never sufficient in overriding the burdens appointed to slaves and to society. Rawls contends that the amplified moral concerns we naturally feel toward issues of justice can be supported by reference to his notion of justice as fairness. In addition, he argues that this is not the case for a classical utilitarian concept of justice that merely prescribes weighing advantages against disadvantages to depict the efficiency of social institutions in satisfying interests and desires.

Of course, simply depending on feelings or inclinations is not good enough. According to the concept of justice as fairness, slavery's injustice is derived from the fact that not all parties involved would mutually acknowledge its terms and rules as acceptable. Manifestly, from the general position with no knowledge of one's place in the practice, one would certainly disagree with the practice of slavery. Thus, the essence of slave owning is unequivocally unjust and thereby the benefits associated with it have no

bearing on assessing the value of the practice. Simply put, according to justice perceived through fairness, slavery can never be just. On the other hand, the classical utilitarian concept of justice acknowledges claims of slave owners that are unwarranted since they have no moral entitlement to these benefits. Hence, Rawls purports that if the definition of utility fails to exclude the satisfaction of interests or desires that contradict principles of justice, classical utilitarianism should be discontinued as a frame of reference through which to understand justice.

However, Rawls (1958) claims that altering the classical utilitarianism-based concept of justice in this manner is inconsistent with the fundamental ideas of the utilitarianism. Not counting certain types of claims opposes the notion of justice that prescribes the maximization of the satisfaction of desires that views all desires equally. On the other hand, Rawls's concept of justice as fairness in its very spirit depicts the types of claims that are in accordance with justice. This is because this concept of justice supports the idea that a practice should not be comprised of any rules or principles that would not be freely accepted as fair by all parties involved. In light of this notion of justice determined from the perspective of the original position, it becomes clear that claims that violate principles of justice are rejected. This reveals the basis of my preference for Rawls's notion of justice as fairness over the classical utilitarian alternative.

Sorting out the Principles

In his book *A Theory of Justice*, John Rawls develops two distinct principles of justice (as cited in Richardson, 2005). Richardson describes how in order to formulate these principles Rawls employs the perspective of the original position that was briefly

mentioned earlier where the decision-maker is void of any knowledge about his or her sex, creed, ethnicity or any other factor on which one might base discrimination. Rawls assumes this position based on his claim that from it, a rational person would only agree to what is fair because that person would not know whether an unfair term would be to his or her disadvantage. For this reason, Rawls is convinced that society ought to be structured upon principles that would be accepted from this position. Indeed, Rawls argues that what we would come up with from the original position are the principles of justice he advocates. Thus, a practice is just or morally fair if it is in accordance with these two principles.

The first principle has been referred to as the *Liberty Principle* (Richardson, 2005). It requires that society must assure equality among all citizens where basic rights and liberties are concerned. Each person thus has an equal right to the most amount of freedom that can be privileged to all.

The second principle has two main components (Richardson, 2005). The first part of this principle is known as the *Fair Opportunity Principle (FOP)*. According to this principle, social structures must be constructed so that stations that provide benefits to the individuals who fill them thereby giving rise to inequalities must be fairly available to all members of society. Thus, if one applies this principle to positions of public office, it suggests the implementation of publicly funded elections such that these positions are equally obtainable to non-wealthy and wealthy citizens. This signifies the idea that two individuals similar in terms of natural ability should have equal opportunities.

The second aspect of this principle – the *Difference Principle (DP)* – concerns inequalities between members of society in terms of social or economic factors such as

goods people need in order to survive or live well (Richardson, 2005). While utilitarianism focuses on the general happiness resulting from the distribution of burdens and benefits, the concept of justice as fairness is concerned with the distribution of primary goods, which could include income and wealth. These primary goods also might include individual rights including those basic rights that pertain to all persons alike and non-basic rights that are attached to particular positions or roles in society. An example of a basic right is the freedom of expression and an example of a non-basic right is a police officer's right to place a criminal under arrest. The DP holds that if inequalities in the allocation of these goods are to be accepted, they must be to the benefit (or must improve the situation) of members of society that are the least advantaged. In this fashion, the example of the police officer's right to place a criminal under arrest can be shown to be to the betterment of society members including those whom are the least advantaged.

Furthermore, the DP would not allow one to benefit from his or her own intelligence or some talent unless the least advantaged people in society benefit from it in one way or other (Richardson, 2005). From this, it follows that greater than average salaries for certain lines of work can be justified. For example, high physician salaries are accepted if doing so provides incentive for more people to go through the intensive training involved in medical education and specialization and thereby prevents a decline in physicians and therefore the quality of healthcare for all including the least advantaged groups in society.

Rawls (1958) explains that the circumstances that call for the Difference Principle can be recognized through the *Principle of Redress (PR)*. The PR asserts the need for

society to address or respond to those conditions or capacities that are imposed on individuals and result in them being in the least advantaged group in society. According to the principle, these conditions or capacities must be responded to only when people cannot be viewed as deserving of them such as being born intellectually challenged. These circumstances call for the application of the DP.

To elaborate, the FOP seems to endorse a society in which resources are provided to individuals compensating for people's circumstances that have made them disadvantaged. This is based on the notion that two equally ambitious, hardworking, perseverant and talented persons should have a roughly equivalent chance of successfully incurring a position that they both desire that give rise to benefits (Arneson, 2002). The ideal society is one where youth are not advantaged relative to other youth because of factors besides genetic inheritance and socialization. It is not that the benefits are taken away from those fortunate individuals that hold them; rather, unlucky individuals are provided with channels that cancel out the benefits of the lucky ones. To exemplify this, an athlete who at an early age was adopted and coached by Tiger Woods would surely benefit from the knowledge and skill that Tiger could pass on. However, the advantages of being adopted and coached by Tiger could be cancelled out if children reared by parents with no athletic ability or knowledge could pay for coaching services from elite players like Tiger Woods if they can afford them. Similarly, governmentally funded programs could be developed so that even impoverished children could be provided with financial assistance or free coaching services taught by someone at the same level.

This example exhibits the idea that ambition, work ethic and natural talent are factors that should dictate success in particular pursuits. Of course, one should note that

intense ambition might lead some people to employ unethical means such as cheating to obtain achievements. In addition, people's ambitions might target unethical ends. This highlights the need to recognize that ambition is morally ambiguous but insofar as it leads to ethically acceptable consequences such as winning a race while acting fairly it seems to be valued by Rawls. In any case, this might be based on the premise that these factors are unique from others such as socio-economic status of one's parents in that they are not imposed through the circumstances inherited by individuals and thus people can be held accountable for them (Arneson, 2002). The FOP suggests that either a circumstance or factor is categorized as being the responsibility of the individual or else that of society. It is only in the latter case that inequalities stemming from the feature should be rectified or compensated for through social structures and practices. However, do our experiences in the real world support the validity of the claim that ambition, work ethic and talent are incurred irrespective of one's socialization?

For one, desire to acquire success in a certain endeavour might itself be subject to socialization and the unchangeable circumstances in which one is born (Arneson, 2002). A good example that depicts this point is how in particular states within the U.S. such as Texas, young boys are taught to engage and pursue football while social norms discourage female participation in the sport. In this case, it seems unreasonable to hold young boys fully accountable for their desire to participate and excel in football and hold girls entirely responsible for their lack of desire to do the same.

A distinguishing feature of principles of justice such as the FOP is that they take precedence above other competing values (Arneson, 2002). Of course, it might be argued that implementing compensatory measures to enforce the FOP or the DP could require

excessive governmental interference into our lives (Fishkin, 1983). This objection does not require fully rejecting these principles. Instead, it might just call for caution in failing to consider other values including privacy, autonomy and liberty that could potentially conflict with the enforcement of this particular principle of fairness (Arneson, 2002). This notion is undeniably supported through pragmatism. It is also important to remind the reader that the FOP is not the only principle that has been argued is a requirement for justice or fairness.

One conception of the FOP can be described as “leveling out the playing field” in the sense that it advocates for the removal of inequalities that result from unchosen circumstances but not those that result from individuals’ decisions presupposing that initial conditions are equal and that social systems allow for fair interactions among individuals (Arneson, 2002). To elaborate, Arneson describes an environment that is conducive to fair interactions as one where everyone starts out at an equal starting position and where the conditions allow individuals to enter joint agreements with voluntarily agreed upon terms. Moreover, in a fair environment, contracts are enforced and persons are not permitted to intentionally hurt others such as through coercion, stealing, fraud or physical harm. Additionally, such an environment must either prohibit individuals from pressing costs of their own engagements on people who have not consented to their involvement or else penalize these individuals by forcing them to compensate for the harm they have caused.

On the other hand, inequalities originating from circumstances beyond people’s control are to be eradicated (Arneson, 2002). The upshot of this is that after creating equal starting conditions, outcomes should be dictated by the consequences of choices

made by the individuals involved. In essence, each individual can then rightly be held responsible for the position they end up in within the social hierarchy. This consequence appears intuitively agreeable since we cannot hold people accountable for things they have had no control over or are unable to significantly alter. Thus, it is first necessary to figure out which circumstances are chosen and which are simply inherited or imposed on individuals. Some unchosen circumstances cited by Arneson include socialization, rearing conditions and genetic factors.

Obviously, the fact that genetic factors were not self-chosen circumstances at the time Rawls and his contemporaries wrote about justice and fairness does not mean that this will always be the case. Principles of justice and fairness including the FOP have been formulated in a context in which genetic features are fixed. As will be more fully discussed in my next chapter, this underlying assumption is questioned in a world where gene doping technology is possible as it would provide means through which individuals can choose to significantly modify their own genetic makeup. As cited in Arneson (2002), Buchanan describes how genetic intervention used to reduce the incidence of genetic diseases or disorders can be used to “level out the playing field” allowing more people to live longer and healthier lives. However, there is no doubt that the application of genetic technology in this sense has aims, uses and implications that are different than gene doping. In any case, respecting the autonomy of persons seems to be a prerequisite for the fair treatment of others. This is highly evident in sport where a failure to view athletes as autonomous rational persons can be viewed as giving rise to various unfair practices dictated by sport governing bodies such as the effects of measures that are deemed to be necessary for the effective enforcement of anti-doping policies.

Autonomy

The Etymology of Autonomy

The etymology of autonomy is a helpful starting point for understanding the meaning of autonomy. As explained by Elliot (2001), the Greeks are credited with coining the term. Autonomy comes from the Greek word that consists of two subparts – autos and nomos – which together refer to self-rule or self-determination. Archaic uses of this term are distinct from the more recent philosophical ideas of John Stuart Mill and Immanuel Kant on autonomy in that the former usage of the term was for describing a feature of the state rather than persons. Autonomy was used to describe independence of Greek states from external control. On the other hand, the individualistic notion of autonomy esteems the freedom of persons to determine their own futures and respects personal values in determining what is in people's own best interests. Autonomy has been understood in a number of different ways. Most often though the contemporary conception of autonomy concerns the power of persons to rationally carry out decisions that impact their futures

A General Account of Autonomy

As stated by John Christman (2003), a general sense of autonomy that can simply be understood as acting in accordance with one's authentic self as opposed to external influences is hardly contestable. However ambiguous this definition of autonomy might be, it seems to support the promotion of empowerment of individuals under oppressive forces. Most people would agree that this is a normatively desirable objective. Divergence can arise however when philosophers attempt to profess the particular criteria that must be met in order to claim that a person is acting autonomously as well as the

degree of importance that ought to be designated to autonomy and how this value should guide our practices if at all. For this reason, many accounts of autonomy exist that differ in their views regarding what it is about autonomy that leads to its apparent normative significance (Piper, 2010).

While there is a wide range of accounts of autonomy, most of the current conceptions primarily focus on the procedure involved in deciding on the course of action in question (Dryden, 2010). In other words, for a person's action to be considered autonomous, the action must emerge through a process characterized by critical reflection. This common notion of autonomy centres on the decision-making procedure rather than the actions decided upon as a result of that process in determining whether an autonomous decision has been made. According to Dryden, disagreement exists on the degree of rationality that the individual performing the act must exhibit if the action is to be considered autonomous. Questions also remain concerning whether autonomy simply requires an absence of interference that impinges on autonomy such as coercion or whether it further entails positive acts of autonomy through reflective self-regulation by the individual.

Autonomy and Freedom According to Immanuel Kant

The notion of individual autonomy stands at the core of Immanuel Kant's views of moral philosophy. Because for Kant autonomy is inextricably tied to morality, his notion of autonomy has been referred to as moral autonomy (Christman, 2003). In his *Groundwork for the Metaphysics of Morals*, Kant discusses freedom as the autonomy of the will (Christman, 2003). He argues that the reason we ought to constrain our actions so that they are in accordance with what is moral is based on what he perceives to represent

freedom at the highest level. In this context, freedom refers to liberty from sources of influences that are outside of a certain aspect of the person's mind. For example, if a person's actions are influenced by a desire for money, pleasing others, revenge or any other external object, this person is constrained by these sources and thus cannot be considered free. Kant calls the state in which a person lacks freedom in this sense *heteronomy*. To be free, Kant says that a person must act according to his or her own *will* and not out of his or her own volition or wishes as in the commonsense understanding of freedom. The good will according to Kant is the moral compass that seeks out morally good actions that are based on moral laws. When a person's will is free from external constraints, the person is free to act based on moral laws that are dictated by the agent's will rather than impositions created by other sources. Only in this manner can the will legitimately be described as being autonomous.

This account of freedom is vulnerable to confusion concerning what can be considered external to the will. In general, some influences can be external to the will yet internal to the person. If something is external to the mind and the person's rational thoughts, Kant classifies it as external to the will (Christman, 2003). For example, money is clearly external to the will but what if the desire of this external object is understood as greed? One can be sure that greed is internal to the individual possessing it. Nevertheless, Kant would still deem greed as external to the will although not external to the individual. Therefore, for Kant, actions that are motivated by greed are not considered free or autonomous acts.

In contrast, common perceptions of freedom portray individuals acting without external pressures based on their own inclinations, emotions, preferences, desires and

values. This clearly differs with Kant's perception of autonomy that excludes such factors since they are seen as inhibiting what he believes to be the true source of autonomous decision-making: the will. For instance, Kant argues that acting out of anger or some other emotion is not the outcome of rational thought and thus cannot be described as exemplifying autonomy. Initially after being the subject of a racial slur, a person might be so angry that he or she wants to physically harm the individual who has made the offensive remark. But after emotions subside, the targeted person will come to his or her senses and determine that to retaliate in such a manner is to act contrary to his or her will and what is morally acceptable. Consistent with Kant's reasoning is the notion that if we do not let go of anger and maintain grudges towards people who have done us harm in life, we can become enslaved by our emotions which can cloud our thinking or, in Kant's words, prevent us from acting in accordance with our will. Perhaps this loss of rational thought that allows persons to act contrary to the will is what leads to back and forth vengeful acts of brutal violence by opposing groups in wars.

In summary, Kant holds that if a person's choices and actions are governed by emotions and thus their will is not free, this means that he or she necessarily acts irrationally (Christman, 2003). If we are truly engaged in rational thought, Kant believes that this gives rise to moral actions or acts that are in accordance with what he refers to as moral laws. What exactly are moral laws? Kant believes that moral laws are *universal principles* that dictate right from wrong actions. Based on Kant's ideas of moral laws, he asserts that acts are never deemed right by assessing their outcomes. They are determined through pure practical reason. This sort of reason refers to that which only promotes

actions because they are good in and of themselves and not for any other purpose such as being elected town mayor.

Can Kant's Moral Autonomy be Sustained in Pragmatic Ethics?

My evaluation of gene doping is concerned with how autonomy would most likely be affected by gene doping. Presumably if one could argue that the application of genetic technologies for performance enhancement in sport in some way compromises an individual's ability to employ reason that is free from external aims or influences so that that person's will is no longer autonomous, then one could deduce that gene doping is indeed detrimental to autonomy in Kant's sense of the term.

At first glance, this test of autonomy appears to be usable for my study of gene doping. Upon closer inspection however, this account of autonomy is fundamentally problematic with pragmatic ethics. In fact, if I decided to buy into Kant's moral understanding of autonomy, I would be required to denounce the pragmatic approach I have chosen and justified as a potentially valuable guide for evaluating the issue of gene doping in sport. This is because my version of pragmatic ethics in itself would be reproached by Kant's ideas concerning autonomy in his moral philosophy. As I have maintained, my pragmatic ethical evaluation will involve endorsing courses of actions that promote values that a desirable community would uphold. Recall that the purpose of my research will be to highlight the implications of gene doping athletes on the value of fairness, autonomy and the conception of what it means to be human. This analytical process of decision-making conflicts with Kant's moral view of autonomy that advocates only making decisions based on the good will or pure practical reason as opposed to values (Johnson, 2004). Thus, it would be nonsensical for me to base my assessment of

how gene doping would speculatively affect autonomy on Kant's definition of autonomy. This is because such a notion of autonomy would deride the process of decision-making involved in my analysis. After all, why would I use a definition of autonomy that indicates that the decision-making process should be based solely on pure practical reason when I am grounding it on autonomy and other values?

Moreover, Kant uses his notion of autonomy to create a moral bedrock or foundation that he uses to explain why we ought to behave morally. Specifically, he argues that if the will is autonomous, we will act only in ways that are in accordance with the good will. As Johnson (2004) explains, Kant claims that acting based on the good will necessarily gives rise to adherence to what he calls the categorical imperative (CI). However it is important to note that Kant maps out three versions of his CI, one of which is that we should always treat human beings as ends and never merely as means. This enforces a respect for human dignity (DeSensi & Rosenberg, 2003). Another account of the CI states that we should act as both subjects and creators of laws that govern our conduct. This constructs a situation where we feel most compelled to abide by the rules since we formed them. A third version of the CI expresses the idea that we ought to act in ways such that any one employing pure practical reason so that their good will is void of any ulterior motives would accept our acts as universal laws or acts that would be performed every time any individual is presented with the same situation. It is this notion that is diametrically opposed to the contextual feature of pragmatism that refutes the role of absolute principles taking precedence in our decision-making.

To be consistent with the pragmatic claims I have already presented as guides for my ethical analysis, moral laws or universal actions miss the point that the world we live

in is utterly complex meaning that we must be able to respond to it in ways that consider the unique considerations inherent in each situation. To be fair, Kant's CI may just be hypothetical and merely intended to provide humanity with a guide for moral behaviour. However, even if this is the case, it implies that some actions can be acceptable in all sufficiently similar situations. This is in discord with the account of pragmatism that I am endorsing.

Perhaps Kant's version of autonomy would be more applicable to my study if the sort of research question I was asking was whether an individual athlete would autonomously choose to participate in gene doping practices. In this case, a person contemplating the use of gene doping would be directed to employ pure practical reason – reason that is free from influences external to the will as described earlier (Johnson, 2004) – to evaluate whether acting in this way could be a morally acceptable universal law. However, Kant's discussion on decision-making by individual agents avoids explicit reference to social decisions such as whether a particular technology should be sought out by researchers and made accessible to the public or banned. Therefore, the question becomes whether the use of pure practical reason and the process of rational thought that Kant advocates for deciding on private matters can be extended to issues that are of social concern.

As already noted, my assessment of gene doping is inconsistent with Kant's CI as it incorporates particular values (fairness, autonomy and the concept of what it means to be human) in the decision-making process concerning the ban or acceptance of gene doping in sport. Clearly, Kant wants us to exclude all other aims such as values from entering the thought process of the rational agent except his or her will. In fact, the only

“morally right acts” according to Kant are ones we would choose to carry out because they are good in and of themselves and do not aim to achieve other ends such as increasing fairness or autonomy (Johnson, 2004). Acts that are good in and of themselves are ones we would accept as universal laws. Conversely, Kant would probably reproach the pragmatic evaluation process in which I am engaged as being entrenched in heteronomy – the term he uses to convey the condition of the will not being free.

Regardless, my ethical analysis of the gene doping ban is closer to social policy concerns than the private matters decided by individuals that Kant clearly targets in his moral philosophy. What I ultimately hope to inform through this pragmatic evaluation is the decision of sport governing bodies on whether they should welcome the arrival of gene doping or attempt to block its entry in sport. So for my purposes I should look for an understanding of autonomy that is more conducive to decision-making in the social policy context.

The preceding paragraphs exhibit why I have chosen to forgo an appeal to Kant’s understanding of autonomy. My reasoning is based on the fact that Kant’s moral autonomy seems to conflict with my pragmatic theoretical approach that is grounded in contextualism and values-based decision-making and appears to be not entirely relevant to social policy concerns such as the ban against gene doping as opposed to private matters. DeSensi and Rosenberg (2003) describe how according to Kant, conduct is only ethical when it is derived from using reason to discern categorical or non-hypothetical duties such as *Thou shall not kill*. Reason allows us to envision whether categorical imperatives are self-contradictory in nature. If they are, then they are surely not moral imperatives by which we must consistently abide. DeSensi and Rosenberg cite Kant’s

illustrative example, specifically that of breaking one's promises. If this were to be committed by all, promises would cease to hold any meaning because no one would trust that another person would keep his or her promise. Kant believes that acting based on desires, values or consequences can only give rise to hypothetical imperatives such as *if you value your children, you must provide them with the necessities of life*. Kant stipulates that these commands are weak since one can simply deny the condition that the statement requires in order to avoid performing the action. For Kant, no such motivator for our actions besides reason can possibly give rise to what would properly be referred to as ethical conduct. Clearly, this strongly dismisses the central foundation of my ethical analysis, particularly the notion of a "desirable community."

Does this mean that I should give up my pragmatic approach or conversely deny the effectiveness of Kant's understanding of autonomy for the purpose of my ethical analysis? As I have already demonstrated, there is much value in the use of the pragmatic approach in this case. Furthermore, my perspective avoids one pitfall that DeSensi and Rosenberg (2003) state is attached to holding two acts as categorical imperatives – that is duties we must uphold in all situations – on occasions where it would be impossible to maintain accordance with both duties. The example that is construed by DeSensi and Rosenberg involves the command that we must aid others when they are in danger and tell the truth. If a murderer asks us to divulge the location of a person he or she is hunting down and we are aware of this person's whereabouts, we cannot tell the truth without possibly endangering the life of that person. If we rank these two commands to guide us in cases where they might conflict with one another, they would no longer represent

absolute or categorical imperatives. In this way, the value of appealing to absolute moral duties is constrained by practical challenges we necessarily face in the world.

To conclude this section, I believe that due to the inconsistencies between the ideas behind my pragmatic approach to the issue of gene doping in sport and those inherent in Kant's moral vision of autonomy, I am justified in exploring alternative perceptions of autonomy that are more compatible with values-based decision-making. Western health care is one context that has clearly attempted to materialize ideas of autonomy in a practical setting. Perhaps this will aid our understanding of the term.

Autonomy in Contemporary Western Healthcare

Today, the notion of self-determination is clearly fundamental to Western culture and is tied to other Western values such as individual rights including liberty or freedom and privacy. The achievement-oriented society in Western countries emphasizes the individual's capacity to carve out his or her own future and the responsibility to utilize one's skills and abilities to do so. The embodiment of this value is made possible through a basic respect for autonomy. The Western health care system is one domain in which the principle of autonomy is particularly important. The prominent role of autonomy can be attributed to a concerted effort to protect patients from the paternalistic manner in which physicians have historically treated patients (Sherwin, 2000). The current autonomy conscious paradigm of Western medical care replaced one where the physician's special knowledge and role implied what was then a taken-for-granted exclusion of patients from decisions that affect their lives such as choices of care and treatment. Traditionally, the role of the physician was to do whatever he or she felt was in the patient's best interest while the patient was expected to accept the doctor's requests without question

(Levinsky, 1996). Inherent in this sort of patient-physician dynamic is the notion that the physician is the only person with sufficient experience and knowledge to issue courses of action regarding any aspect of the care or treatment of an individual. Also, this line of reasoning often led to doctors withholding the complete status of the person's health and even lying to their patients in an effort to maintain their optimism and hope (Deber, 1994).

Yet, decisions based on what is in the best interest of the patient judged from an external perspective could very well differ from a decision that accounts for the patient's unique set of preferences and beliefs. In addition, doctors might misjudge the preferences of their patients even if they attempt to consult their beliefs and sentiments in decision-making. These are the general reasons behind integrating the notion of autonomy in the health care setting. If we only consider the general aims of incorporating the value of autonomy into physician practices, there seems to be nothing that is disagreeable about strictly rooting health care practices in autonomy of the patient. As such, autonomy is central to biomedical ethics in the United States. The 1997 Belmont Report that serves as a guide for studying human subjects instructs researchers to display respect for persons (Dryden, 2010). This overarching goal of the report is partly achieved by demanding autonomy for individuals through fully informed consent.

Similarly, in *Principles of Biomedical Ethics*, Beauchamp and Childress (2001) advocate four principles of ethical decision-making in health care, one of which is respect for autonomy. In this seminal book on bioethics, the authors assert that patient autonomy should sometimes be respected through disclosure of information that allows for informed consent. The reason that some circumstances do not call for respect for

autonomy via full disclosure and direct involvement of the patient in decision-making is based on the fact that the importance attributed to autonomy in Western culture does not resonate globally today. This means that some patients choose to subscribe to religious or cultural conventions or norms that do not call for disclosure of information and physicians must respect their choices even if they do not agree with them in order to demonstrate respect for autonomy.

Autonomy in Relation to Multiculturalism

Elliot (2001) purports that the vast majority of the world's population does not subscribe to individualism that is linked to Western culture. This can be clearly exemplified in cases where the values of patients who have immigrated to the Western world clash with the domestic values that guide health care practitioners. For example, the Chinese culture and Buddhist philosophy prioritize the community and family togetherness over the individual (Elliot, 2001). For this reason, Chinese immigrants in addition to others such as Mexican Americans often relinquish their individual authority to make important decisions. Instead, the power to decide on serious matters such as treatment for diseases and conditions, resuscitation and other life or death issues is often transferred to the family members of the individual. This stems from a cultural priority allotted to harmonious living with one another in family structures and community settings.

The overriding of individual autonomy by family based decision-making has also been observed in studies performed in Spain, France, Japan and Eastern Europe (Elliot, 2001). In these areas, family interdependence and individual roles within the family arrangement hold much more significance than self-determination and fully autonomous

decisions that require full disclosure of information to the patient. For instance, in cultures that uphold family interdependence over individual autonomy, patients that refuse their right to full disclosure of important information concerning their own health might be perceived as giving up their right to autonomy. Alternatively however, one might conceive this action as exercising one's own autonomy in that persons choose to rely on and trust in family members to make the best decisions on their behalf as they see fit. One might justify this choice if a sick patient views full disclosure as isolating or psychologically troubling as studies have demonstrated (Elliot, 2001).

Some patients might also believe that their own judgment is impaired by their health condition in which case others might be in better positions to decide on courses of action for them. In these situations, physicians might think they are acting laudably by ignoring patients' pleas to refrain from decision-making and providing full disclosure. However, pushing patients to decide for themselves by requiring that they make a decision impinges on their autonomy and as such can be viewed as disempowering. Interestingly, this outcome is the opposite of the intent behind autonomy as a guiding principle.

Furthermore, Elliot (2001) highlights that when groups uphold family interdependence and function over autonomy, we must consider their perceptions of autonomy when making decisions that are based on this value. More specifically, Elliot states that "Deep respect for individuals is demonstrated not by faithful observance of what practitioners believe is best for the person but by consideration of what the patient requests and his or her perceptions of care" (p. 328).

An objection to the notion of respecting an individual's choice to pass on

exercising autonomy in decision-making concerning his or her own personal health can be made. The principle of autonomy assumes that each person desires to make decisions that impact their lives (Elliot, 2001). This assumption coupled with the fact that medical decisions greatly influence people's lives leads to the idea that all persons want to exercise their own authority over appropriate aspects of their health care. Schneider (1998) suggests that patients would not give up their autonomy in the manner described above if they experience and thereby get to appreciate what it is like to have authority over their own medical concerns.

Norris (as cited in Elliot, 2001) extends this argument when he advises that health care providers should ignore wishes of family members to withhold information and thus decision-making rights from the patient. His reasoning is based on the fact that the beliefs of the patient might differ from those of his or her family members. The patient might not share the beliefs of the cultural or religious group to which they are associated. Moreover, exercising autonomy in medical decision-making requires that the person is aware of the appropriate information surrounding their health and the decision. For example, Norris's reasoning might lead us to pronounce that autonomy is thrown out the window in a hypothetical situation where family members ask the physician to withhold information from the patient concerning his or her own medical decisions. Let us imagine a more detailed scenario where the decision to be made is whether or not a cancer patient should undergo chemotherapy when the probability of survival is very low. Now imagine that the family has requested that the patient not be told about the presence let alone severity and type of cancer because they think it would be too distressing for him or her. In turn, the patient never gets to decide whether he or she would like to seek treatment or simply

enjoy better quality of life for what will likely be his or her last days alive.

Elliot (2001) responds to Norris's counter-argument by qualifying opposition against family members deciding for the patient by making an important distinction. He distinguishes between cases where the family has requested waiving the policy of full disclosure to the patient from situations where the request has come directly from the patient. Elliot holds that one can accept bypassing a sound-minded patient in delivery of medical information to family members when directed to do so by the patient only. According to Elliot, just because a patient does not decide on his or her own health issues, he or she might still be practicing autonomy if it was indeed their choice not to do so. In Elliot's own words:

Through more profound linguistic and philosophic consideration, it can be concluded that a person may practice autonomy but not make direct decisions regarding their health care. The person is indeed autonomous in that he or she has chosen to cede desire for information and decision making to another party, whether it be family or provider. (p. 30)

What can and should be taken away from this exploration of the cultural variations in the perception of autonomy? Elliot (2001) urges us to avoid drawing conclusions regarding individuals because of the family, religion or cultural group to which they belong. When dissent occurs between physicians and patients where values are concerned, clear lines of communication between them are drastically important. Communication is crucial as it could serve to help disassemble stereotypes or generalizations that the physician might make about the patient in order to simplify and thereby more easily resolve the issue. So while one should be mindful of the cultural

values of others, it is just as vital to remember that beliefs and values differ within cultural groups and across health care professionals.

This discourse in health care brings important lessons to the forefront in our examination of gene doping in sport where autonomy or our other guiding values for that matter are concerned. Elliot (2001) concludes by recognizing the need for “more cross-national investigation regarding the cultural relativity of ethics” (p.30). While his focus is on a health care context, an understanding of cultural differences that impact the significance placed on particular values is imperative in all aspects of our multicultural society where Western ethical principles preside. For this reason, as Elliot notes, investigating autonomy and other values we use as guides from alternative perspectives “is not only recommended but also necessary” (p. 30). Manifestly, unlike moral autonomy endorsed by Kant, the understanding of autonomy that is evident in the medical context supports values-based decision-making. Thus, I will refer to this contemporary application of autonomy in bioethics to provide a much more relevant and practical understanding of the term for the freestanding pragmatic approach I am employing in my ethical analysis.

Autonomy: What Should Motivate our Actions?

According to John Christman (2003), autonomy usually encapsulates two main ideas: self-rule and self-government. Self-rule is comprised by both the capability of the individual to govern him or herself and freedom of the individual’s decision-making from the influence or coercion of others so that the act can be based on desires that are somehow authentic to the individual. Although different accounts of what is required for autonomy exist, the capacity to rule one’s self usually requires the ability to engage in

rational thought and self-control. An autonomous person must be able to identify with his or her desires and values to see which actions they compel him or her to execute.

This account of autonomy has been charged with being ambiguous with respect to the manner in which one must “identify with” aspects of one’s self (Christman, 2003). One might question in what way a person must identify with a desire for acting on it to be considered autonomous. For example, how are we to view a desire to satisfy a drug addiction? Clearly, Kant would reject such desires completely since they are external to the will. At least on one level, the drug addict wishes to give in to his or her urge so for another person to interfere, this could be seen as a violation of autonomy. Still, this is not an intervention that I find problematic because of the assertion that is backed by my pragmatic theoretical framework that autonomy is not the only value we should aim to promote. In some cases, modern society accepts interference with the autonomy of persons. Paternalistic interventions in the lives of individuals are sometimes justified as being in the individual’s best interest. Typically, although not always, this involves persons that are in some way unable to judge or rationally assess their options.

A Brief Note on Paternalism

Paternalism refers to interference in the liberties of others and can be justifiable on the premise that some individuals do not have the capacity to decide for themselves on options that advance their own good. An example is helpful in illustrating a distinction between two classifications of paternalism, namely hard and soft paternalism. Dworkin (2010) describes a hypothetical situation originally thought up by John Stuart Mill where we are confronted with a person about to cross a damaged bridge which we know will result in his death or great harm. The situation is further complicated by the fact that we

do not speak the same language as the person and are unaware of whether or not he is aware of the state of the bridge and the risk involved in crossing it. A paternalist would advise us to make an effort to physically stop this person from crossing the bridge to evaluate whether he is aware of the danger involved in this course of action. If we find out that he is informed about the peril involved and still wants to use the bridge, a soft paternalist would argue that we must allow him to proceed. On the other hand, a hard paternalist would argue that at least in certain cases including voluntary suicide, we would be right to try and stop the individual who knows fully well the plausible consequences of his actions.

I agree with the idea that in some instances where vulnerable populations such as young children are involved, some form of paternalism is warranted. This is based on the fact that relative to most adults, children are less able to rationally weigh their options when it comes to decision-making. For the most part however, Christman (2003) explains that if we choose to interfere in the lives of adults because we think their actions are contrary to their best interests and even if there are certain factors impeding their autonomy, we do not respect and treat them as autonomous persons. It is important to note that this does not mean that intervention is never justified in cases such as the example concerning the drug addict or perhaps with suicidal individuals.

As Robert Simon (2004) explains in *Fair Play: The Ethics of Sport*, one major argument that is used to justify the ban on the use of performance-enhancing steroids in sport is that it is dangerous especially when taken in doses that are required to enhance performance. Even if it can be proven that performance-enhancing drugs yield noxious side effects to its users, Simon states that protection from harm may be inappropriately

paternalistic. To lend credence to his position, he highlights that in various instances in our society we feel that it is in our collective best interests to be left free to engage in activities such as smoking and consuming “junk food” and alcohol all of which pose significant risks particularly when regularly carried out in excess. If a third party determines that it is in our best interests to be limited from choosing to partake in these dangerous options, this would involve a high degree of monitoring and regulating of our lives by external authorities. Also, interference by an external source ignores the possibility that we could very well have a perception of what is in our best interest that widely differs from that of the third party.

Simon (2004) acknowledges that some limitations emerge concerning the argument that holds the ban against performance-enhancement drugs in sport unjustifiable on antipaternalistic grounds. First, we must be sure that athletes who choose to enhance their performance by using drugs are not coerced to do so and are competent rational agents. This represents the reasoning behind restricting children below the age of maturity from deciding whether or not they will use performance-enhancing drugs. If we reorient our focus on competent rational agents, individuals must be sufficiently aware of the risks involved in taking steroids or whichever form of enhancement is in question. If not, we cannot signify their decision as rational.

It has been argued that coercion to use performance-enhancing drugs is at play particularly in the professional sports context where anything that falls short of an optimal performance can jeopardize the length and success of one’s career. The argument claims that athletes are coerced into using performance-enhancing drugs because of their desires to be successful coupled with the great weight on them to constantly push their

limits and exude stellar performances. Simon (2004) thinks that this argument fails to convince us that a ban against these practices and substances is needed since a mere drive to succeed in one's profession, whether it is in athletics, business or any other area, does not remove the choice of which measures to take to ensure one's success from each individual. Barring special circumstances, professional or elite athletes can choose to retire. Simon contends that athletes, just as other professionals in competitive lines of work or even students in challenging educational programs, are free to make fully informed rational decisions regarding the practices they undertake in order to succeed.

If we are to comprehensively examine coercion in this context, it is helpful to refer to Simon (2004) and his assessment of the argument that borrows Mill's Harm Principle which claims that we are only justified in constraining the liberty of competent rational persons when harm is posed to others rather than solely themselves. According to Simon, Mill claims that interfering with rational and informed agents who harm only themselves through their actions cannot be justified because doing so is inefficient. The property of inefficiency is asserted by Mill in this occasion because he believes that the biases and prejudices of others can often prevent them from knowing when, how and why they should interfere. After all, who are we to say what is in the best interest of others? Secondly, Simon describes Mill's second set of premises with which he uses to defend his Harm Principle. Mill claims that if we never make choices for ourselves, we fail to utilize and improve our mental faculties such as judgment and perception as they relate to decision-making. Simon describes the effects of constantly treating persons paternalistically and thus forbidding them from dictating how to live their own lives. He asserts that not only does this inhibit moral and intellectual growth but it also impedes

autonomy that serves to protect persons from being perceived as mere commodities in the calculation of the greater social good.

From this perspective, it could be argued that athletes should be protected from circumstances that coerce them to use illegal substances in order to remain eligible to compete amongst contenders comprised at least partially of users. As mentioned above, Simon responds that this arguments involves a much too loose use of the term coercion as all other competitive environments can be construed as coercing individuals from freely choosing their actions. Simon then confronts the question of whether it is immoral for an athlete to use performance-enhancing drugs creating circumstances that force other competitors to decide between following suit or otherwise refraining from using and therefore becoming significantly less or no longer competitive.

Simon (2004) believes that we would not find it morally problematic for an athlete to train intensively and thereby put pressure on his or her competitors to train just as intently. The same is true of the earnest student that studies incessantly and thus sets the bar extremely high for his or her fellow classmates whom are all vying for a limited number of “A’s.” In these cases, even if others feel coerced to try harder, the student and athlete are perceived as doing nothing wrong. As Simon speculates, we would likely even encourage their actions because they result in superior performances.

Therefore, Simon’s (2004) consensus on the justification of the ban against performance-enhancing drugs is precisely that there is presently no clear argument either for or against permitting it that remains intact after critical analyses. However, Simon clearly tends to favour the ban largely because “athletes who use steroids have no right to put other athletes in the position of either damaging their health or competing under a

significant disadvantage” (p. 78). The assumption made here is that unlike training or diet regimens for example which may be innocuous if appropriately created and carried out, ingesting or administering performance-enhancing drugs is harmful. He recognizes that this argument may be rejected upon further inspection perhaps with respect to the level of harm actually posed as a result of using performance-enhancing drugs but also highlights that it might also be strengthened in conjunction with other arguments possibly based on fairness.

Criticism of the Focus on Procedural Autonomy

Accounts of autonomy can be classified as focusing on procedural independence where the desires or values of persons are not judged. Conversely, other conceptions of autonomy focus on substantive independence that refers to notions of autonomy that are tied to normative assessments of the motivators or aims of persons’ actions. As an example, a judge with a general procedural independence-based view of autonomy might conclude that the autonomy of a person is exercised where he or she rationally decides freely from external coercion to join and submit to a cult. While no judgment from this perspective is made with respect to the choice of the individual, an arbiter with a substantive view of independence would likely speculate that autonomy is absent based on the choice made by the person. Some scholars have emphasized that both procedural and substantive types of independence should be considered requirements for autonomy (Benson, 2005; Oshana 2006). Christman (2003) describes arguments that endorse making substantive independence part of the autonomy equation. These arguments are based on the idea that regardless of how a person has come to decide on a choice or act, if it is in accordance with constraints due to particular life circumstances, that decision

cannot be viewed as wholly autonomous (Christman, 2003). This is debatable and is reminiscent of the health care example explored earlier where patients redirect informed decision-making with respect to their medical concerns to family members. Such decisions can be traced back to people's values, beliefs and personalities all of which are attributable to upbringing and experiences.

Criticism of the Individualistic Approach to Autonomy

The sense of autonomy so far presented that emphasizes critical self-reflection requires that persons carry out rational assessments of their desires and values, for instance by checking whether they make sense to them in light of their other desires and values. This focus on "rational appraisal" of desires has been criticized as a far cry from the modern shift toward a holistic view of human beings (Christman, 2003). Research seems to highlight that desires, wishes, personalities and inclinations are the products of the complex interplay between biological or genetic constituents and the environments and manners in which we have been socialized. In particular, the rational self-reflection account of autonomy has been charged with requiring that individuals detach themselves from their emotions and relations with others in society. However, due to constraints of human nature, it is argued that this is seen as impossible. Christman (2003) describes the apparent discrepancy between rational theories of autonomy and human capacity as being rooted in the idea that "connections to values, desires, and personal traits are often grounded in emotional and affective responses, ones connected with care, commitment, and relations to others" (Autonomy in Moral and Political Philosophy, para. 19).

In short, we cannot fully isolate ourselves from the features that comprise who we are or how we see ourselves as beings. Thus, the individualistic understanding of

autonomy as well as Kant's requirement that the will be free from external sources seem to lack correspondence with what appear to be intrinsic features of human beings that contribute to what drives us to carry out courses of action. For example, the career that a person decides to pursue is often influenced by his or her personality, emotional reactions to certain settings such as anxiety in high-pressure situations, environmental surroundings and interactions with others. To claim that autonomy requires critical self-reflection or rational thought free from emotional urges or responses is to ignore seemingly significant aspects of human character.

Similarly, notions of autonomy that focus solely on acting in accordance with one's desires neglect other aspects with respect to which we can be seen as acting autonomously. Christman (2003) points to the fact that autonomy can be demonstrated by persons acting consistently not just with their desires but with aspects of their personality, physical traits, relation to others and values. However, the question remains whether features that impact individuals' lives but that they are unable to change such as their cultural background should influence the extent to which a person is seen as living autonomously. Again, one can refer to cultural clashes that we see in health care with respect to autonomy and informed consent as issues that demonstrate the complexity that accompanies answering this question.

Autonomy is also relevant to the issue of improving the treatment of vulnerable populations such as groups of persons with disabilities (Dryden, 2010). For example, the disability rights movement aims to empower and help ensure that people with disabilities are recognized as competent individuals so that they can be the primary agents in determining their own lives. For this purpose, an alternative take on autonomy has

entered the discourse on disability and healthcare ethics. As will be presented next, this approach to understanding autonomy criticizes traditional accounts for focusing on the individual while ignoring that we are apparently social beings.

Relational Autonomy

Individualistic understandings of autonomy such as Kant's moral autonomy focus on the critical thought process whereby persons govern themselves in terms of how they wish to live and behave. This entails assessing one's values and features that comprise the self as if these are all changeable features (Christman, 2003). As already mentioned, individualistic accounts of autonomy ignore apparent characteristics of human nature. In particular, these accounts of autonomy have been completely void of discussions on the environments in which persons are situated with respect to others, institutions or locations, for example. The problem with neglecting these considerations in conjuring up conceptions of autonomy lies in the fact that our social relations and cultural experiences have lasting repercussions on who we are and how we define ourselves (Christman, 2003).

Sherwin (2000) recognizes that individualistic accounts of autonomy are inherent in the works on performance enhancement by sport philosophers including Tamburrini (2005) and van Hilvoorde (2005). For this reason, she suggests an alternative relational approach to understanding autonomy that recognizes that people form their values through dialogue and interactions with others. Sherwin demonstrates the superiority of this relational understanding of autonomy over an individualistic interpretation referring to the example of cosmetic surgery critiqued in feminist theory literature. From the individualistic interpretation of autonomy, females that alter their appearance for

aesthetic reasons appear to be acting autonomously. However, it seems naïve to assume that women can ignore the societal pressures that are on them to look a certain way while deciding whether or not they will seek out plastic surgery procedures to enhance their appearance. The prevalence of women undergoing cosmetic surgery becomes normalized in society. This in turn heightens the urgency for un-enhanced women to do the same and thereby undermines the autonomy of these women.

This example helps illuminate the depth of our immersion in social relations and cultural environments and how we cannot be defined without considering these factors. A second example can be used to further illustrate the everlasting imprints left by socialization. Christman (2003) views language as a form of social construction. Even introspective reflection which is prescribed by autonomous decision-making in the individualistic sense of the concept is limited by the expression of our thoughts through language and thus our socialization. In Christman's (2003) own words,

In any number of ways we are constituted by factors that lie beyond our reflective control but which nonetheless structure our values, thoughts, and motivations....To say that we are autonomous (and hence morally responsible, bear moral rights, etc.) only when we can step back from all such connections and critically appraise and possibly alter them flies in the face of these psychological and metaphysical realities. (Autonomy in Moral and Political Philosophy, para. 46)

I am of the belief that, even if it were possible, we should not completely disconnect ourselves from our values, desires and relations with others. I certainly do not think that this is necessary in order to be autonomous. A person can try to critically

evaluate their desires and values to see if he or she really approves of them. However, as I have already suggested in my previous chapter on pragmatic theory, I believe that not only are we unable to view external reality or ourselves for that matter impartially and objectively but doing so is not useful for our needs. Perhaps more obviously still, some things such as one's native language or ethnicity are simply not subject to being changed (Christman, 2003). But our not being able to alter such self-defining features does not make us heteronomous. On the other hand, Christman asserts that what might be more appropriately considered heteronomous is our inability to change parts of ourselves from which we feel "deeply alienated." A striking example of this is transgendered individuals who do not identify on a deep level with the gender that is associated with their physical features and who do not have the option of sexual reassignment surgery or procedures. These individuals might be described as being heteronomous with respect to the features they are unable to alter.

Dryden (2010) describes relational autonomy as accounting for the idea that an autonomous self necessarily exists in relation to others. Given the dynamic nature of the world in which we live, the autonomous individual must constantly respond to others making it impossible to define autonomy without these interactions. Because of this, Donchin (as cited in Dryden, 2010) argues that a relational sense of autonomy is most helpful when it comes to decision-making in health care.

The argument for a relational understanding of autonomy can be seen as the logical product that emerges out of two main premises (Christman, 2003). The first claim is that we are at least partially defined by our relations to others. Secondly, autonomy is said to be generally understood as self-government. Therefore, since an account of

autonomy requires a reference to the self and because the self necessitates a reference to our relations with others, then autonomy must be understood in a relational sense.

As a result, relational autonomy is able to avoid the traps of procedural accounts of autonomy that do not recognize how oppressive relationships or political forces can hamper an individual's capacity to exercise skills that allow him or her to be an autonomous agent (Sherwin, 2000). For example, women who have been socialized in such a way that undermines their self worth because of their gender can internalize this belief and consider it to be legitimate when making decisions about their lives even when they critically evaluate it.

As Sherwin (2000) demonstrates, the traditional view of autonomy would likely claim that simply by providing these oppressed women with unbiased information and inhibiting interference from coercive forces such as family or community members, autonomy is regained by these women. But, for example, even if a woman is free in this manner to choose a career for herself she will likely find it extremely difficult to simply ignore traditional roles that guide the society in which she has been reared or shut off the belief imposed on her throughout her life that she is less competent than men. This might lead her to opt for a less demanding career than her husband and other men she knows. In this way, relational autonomy acknowledges that people's relationships and social circumstances bear heavily on either promoting or hindering their ability to engage in opportunities that allow them to see themselves as autonomous agents (Sherwin, 2000).

Sherwin (2000) also uses relational autonomy to argue that decisions to embark on the research and development of certain medical technologies such as novel reproductive techniques should not be solely considered by researchers and medical

personnel but should also be publicly debated by all members of society. Individualistic conceptions of autonomy would endorse providing all patients with access to all the options in terms of medical services and allowing them to freely decide which ones they would like to seek out much like capitalist styles of consumerism. In stark contrast, relational autonomy enlists the public to debate and decide on the social and political values they feel ought to be endorsed through research and the services that are made available as a result. However, it should be noted that solely appealing to widespread acceptance of certain technologies might undermine the minority's choice to withdraw from their use. For instance, prenatal genetic screening procedures might become so popular that new parents are restricted from refusing to conform to them. In this respect, the exercise of autonomy by some individuals might encroach on the autonomy of others. Lastly, Sherwin asserts that we ought to be extra careful when contemplating the introduction of emerging new services that could potentially reinforce oppressive forces on individuals.

My Understanding of Autonomy

To be clear, I would like to reiterate the notion of autonomy I will employ while working through and speculating on the consequences of gene doping in sport in my next chapter. My understanding of autonomy is one that is based on rational and competent persons making choices based on their knowledge of relevant information and all aspects of their being such as their personalities, inclinations, desires and values that combine to create the whole person. To this effect, individualistic or procedural notions of autonomy will surely inform my view of autonomy. However, I also purport that the person can only be fully understood in relation to the environment in which they are situated and this

includes their interaction with others. Interestingly, the acknowledgment of relational forces on the individual also happens to be more conducive to matters concerning social practices such as gene doping in sport. Thus, I will combine the understanding of autonomy I have gained from bioethics with a relational approach to provide a more holistic view of persons that meshes with my experiences as a person living in this world. I suspect that this understanding of personhood will help inform my exploration of concepts of what it means to be human living in a dynamic and ever-changing world.

Human Value

Campbell, Glass & Charland (1998) amalgamate literature from a wide array of disciplines including bioethics, philosophy, science, anthropology and psychology that discuss what it means to be human. In their paper, they argue that while each of the academic fields that is considered highlights a different aspect of humanness, not one of these perspectives is sufficient on its own. Therefore, in order to get closer to understanding the whole essence of our species, the authors stress that all these areas of research must be included. Accordingly, appealing to more than one source of values in ethical analysis is a form of eclecticism endorsed by the freestanding pragmatic approach that I am adopting.

Prior to divulging the particular traits that the authors claim are necessary aspects of humanness, it must be noted that their list is neither complete nor in-depth and, as such, it is merely a useful place to begin our self-understanding. Not only is this assertion compatible with my pragmatic framework, but it also is acknowledged by the authors themselves when they state that, “even though our selection of sources is by no means exhaustive, we believe that it should provide a good starting point to initiate a discussion

on this critical topic” (p. 416). Acknowledging the provisional status of this account of humanness clearly adheres to yet another aspect of freestanding pragmatism that rejects making absolutist claims in research.

To get started, Campbell, Glass and Charland (1998) evaluate four main facets that have been focused on in academic research as describing humanness. The features that they argue are universal to all humans and what sets us apart from other beings are cognition, biological or physiological constituents, social relations or interactions with each other and what they refer to as spirituality. I concur with the authors’ views that these four factors of humanness should be perceived as interacting in a holistic and interdependent “system.” For instance, if biological constituents such as genetic traits that are responsible for memory are enhanced, cognition would be affected as well as social interactions with others.

Cognition

The first of four characteristics that describe humanity – cognition – is attached to a wide range of interpretations. For instance, cognition has been defined as being synonymous with intelligence, consciousness, rationality and autonomy (Campbell et al., 1998). Each of these factors that might illustrate cognition have been argued by different scholars as representing what sets us apart from non-humans. I am not convinced that cognition as autonomy or rationality is a characteristic required for a creature to be considered human. Would we agree that a person who is oppressed due to slavery for example is less human because he or she is perceived as less autonomous? I think not as this seems incredibly counterintuitive. A slave might certainly be treated as though he or she is not a human being but we should be careful not to equivocate the treatment of

persons with their actual status as persons. Perhaps claiming that autonomy is a requirement of humanness is due to how we often feel compelled to protect and respect persons' autonomy over their own lives simply based on the fact that they are human. I am of the position that all humans, barring a few exceptions such as children and intellectually challenged persons, have the potential to be autonomous beings but that whether or not they are autonomous fails to alter their humanness. Indeed, children and intellectually challenged people are no less human than rational and fully autonomous adults.

A similar counter-attack can be directed at the understanding of cognition as consciousness. If we accept that cognition is an aspect that distinguishes human beings from others and if we claim that cognition means being conscious, then if I experience a trauma to the head, do I somehow stop being human while in a state of unconsciousness? Again appealing to intuition, one would likely find this question preposterous. However, we can respond to this challenge that opposes consciousness as a required feature of humanness by clarifying that it is not a state of consciousness that is required, but a capacity for such a state. Thus, I find this understanding of cognition to be more agreeable in the sense that people who are unconscious, dreaming or in a comatose state are still considered human.

The understanding of cognition listed above that has not yet been examined is in terms of intelligence. For instance, it might be argued that a minimal level of intelligence is required in order to determine whether a creature is human. In this sense, one might question whether or not genetically enhancing a person to be more intelligent than any human that heretofore existed would result in other persons viewing him or her not as

human. Campbell et al. (1998) state that if others view a genetically enhanced person as belonging to some separate species or subspecies of humans, they therefore perceive humanness to be affected.

Biological Composition

In scientific literature, having a functioning human central nervous system, human anatomy and physiology as well as a human genome have all been proposed as representing biological requirements for being considered human (Campbell et al., 1998). For instance, if a person is genetically modified so that his or her behaviours, actions and appearances are more dog-like than human-like, it makes sense that humanness is altered, diminished or revoked all together. These features depicting humanness are fraught with difficulties however. Consider the case where the genome of a chimpanzee is manipulated to mirror that of a human. Would we then consider the chimpanzee to be human? These are the sorts of questions that the authors of the paper present as providing support for the belief that humanness is to some extent characterized by biology but that other factors must also be factored into the equation.

Social Behaviours

Having the capability to develop relationships and communicate with others has been suggested as necessary to be human. At this junction, my relational understanding of autonomy can be retrieved to explore this aspect of humanness. Recall that my notion of autonomy is based on rational and competent persons making choices based on their knowledge of relevant information and all aspects of their being such as their personalities, inclinations, desires and values that combine to create the whole person. This is applicable to the two preceding aspects of human traits listed above – cognition

and biological composition. However, the second main aspect of autonomy that I have included in my understanding of the term was based on the fact that the person can only be fully understood in relation to the environment in which they are situated and this includes their interaction with others. To reiterate, the relational approach of understanding both persons and autonomy provides a holistic view of the humanity. Questions about the effects of genetic engineering on this aspect of humanness might include whether other humans might fail to identify with and relate to genetically altered athletes as fellow humans.

Spirituality

Across the ages and globe, humans have expressed and practiced spirituality in different ways that made the most sense to them (Campbell et al., 1998). The authors argue that despite the stark differences between cultures both past and present in how they project spirituality, the common feature that humans seem to possess is a yearning to connect with some bigger, greater or more powerful force than themselves. Moreover, the authors contend that spirituality along with cognition, biology and social behaviours all work interdependently. This leads them to believe that genetic enhancement on a biological trait could quite possibly result in a change in one's spirituality. One example that they use to support the belief in a "biopsychosocial" model of personhood is plastic surgery which alters one's aesthetic appearance but also has potential to enhance one's self-esteem thereby affecting the ability to have successful and meaningful relationships with others as well as social status. Conversely, others who claim a body-soul dichotomy where spirituality is strictly isolated from the body would not believe in the ability of the two entities to influence one another.

Utility of the Four Features of Humanness

I am going to conclude by asserting that while the abovementioned list of features of humanity is useful in providing us with the way humanness is holistic and interdependent, it is overly ambitious and not necessary to attempt to purport certain features that are intrinsic, unique and universal to human beings. Supporting my view are all of the limitations involved in describing humanness in detail using the four aspects highlighted above. As an alternative to a detailed portrayal of humanness, I will try to provide a more general account of human nature that can still serve as a reference aid for assessing the consequences that will likely be associated with genetically modifying athletes. The issue in which I am interested given my pragmatic theoretical approach is not so much whether gene doping makes someone less human but whether we would perceive this to be the case. The situation where people believe that genetically altered humans would comprise a subspecies could lead to consequences such as either enhanced or non-enhanced groups being ostracized. Thus, the segment of the paper by Campbell et al. (1998) that I find particularly useful and relevant for my purposes is the area of concluding remarks where they discuss a framework they claim will assist in distinguishing which specific types of genetic interventions should not be explored via research. Here, they contend that we need to ask two major questions; in their words:

1. Will the intervention cause the being to possess physical or behavioural traits that readily distinguish it from what is usually perceived as “human”?

2. Will the intervention cause the being to have an intellectual or physical capacity that is significantly superior or inferior to current human abilities?

These questions will be explored in the portion of my next chapter on the effects of gene doping on what it means to be human. Of course, at present, only speculative or hypothetical remarks can be made in response to the abovementioned questions where gene doping is concerned. For the remainder of this chapter, I will critique alternative conceptions of human nature.

As briefly outlined in my introductory chapter, Murray (2009) highlights three distinct conceptions of human nature in relation to sport. I will now evaluate each of them more closely while once again referring to how each would judge the viewpoint put forward by Jonsson (2007) in which he advocates the welcoming of cyborg or gender-neutral athletes that may emerge out of gene doping applications.

Human Nature as a Normative Guide

The first conception of human nature in relation to sport that is addressed by Murray (2009) is as a normative guide that informs us on what is right and good. To utilize technology to transcend our humanly limits is to disvalue our individual efforts and talents. According to this view of human nature, we should exceed our own limits only in cases where human dignity is threatened, such as a surgeon using a cutting edge computerized system to perform an operation that is required for the survival of the patient.

With respect to this conception of human nature, I would like to ask why utilizing technology to transcend our human limits would represent disvaluing our individual

effort and talents. Is it simply due to the fact that we would be showing dissatisfaction or a lack of appreciation with our abilities by enhancing them? If this is the case, then what prevents a person from accusing athletes of doing the same when they train, condition and practice to exploit their strengths and fix their weaknesses? This reasoning will not suffice since a significant aspect of competitive sport is about pursuing excellence and striving to perform at the best of one's potential. Conversely, perhaps genetic enhancement disvalues our individual efforts and talents because such procedures permit athletes to put in the same effort and perform better than they would without being enhanced. In this sense, it is possible that effort is disvalued since genetic enhancement can be construed as passively reducing the role of effort required for athletic performance while training and other practices require time, dedication, as well as effort to reap the benefits associated with improvements in performance.

In addition, one might question what we mean here by "exceeding our own limits." Does this refer to each individual's limits or the limits of the human species? It seems to me that transcending limits in the context of discussing new technologies can be understood in both ways. Either way, once we have exceeded current limits, they no longer represent human limits. We are constantly reinventing particular aspects of our limits as can be seen with the effects of medical advancements like vaccines and antibiotics that have augmented average life expectancy at least in some societies. Since certain conditions that once limited longevity can be negated by these scientific innovations, we are able to live decades longer than our ancestors. I do not think it is presumptuous to assume that most rational people do not find this intervention to be immoral or unethical simply because it allows us to surpass our former human limits. It

might be argued that antibiotics are therapeutic and thus belong in the select few cases where interventions in human nature are acceptable. On the other hand, vaccines appear to cloud the so-called distinction between therapy and enhancement since they promote or enhance health by arming the body with immunity against viruses that may or may not be encountered by the individual.

Moreover, the qualification that is made in this view of humanity can be critiqued as well. This criterion claims that we should exceed our own limits only in cases where human dignity is threatened. The example that is offered is a surgeon using a computerized system to perform an operation that is required for the survival of the patient. The case provided above might lead us to think that the way to protect human dignity from being endangered is to employ whatever measures can prevent the loss of the life. Conversely, perhaps protecting human dignity in some instances might constitute withholding artificial life resuscitation interventions. It might be argued that in certain case this would allow individuals who are suffering or in vegetative states to die with dignity. I will evade delving deeper into the issue of life extension as it goes beyond the scope of my thesis.

Also, this perspective of humanity presumes that humans possess an intrinsic value of dignity. Given my pragmatic perspective, whether or not this is the case does not represent a concern of mine. I am more interested in whether or not we should act in such a way that is in accordance with a belief that human life necessarily has an inherent value of dignity. In other words, do we desire to live in a community where members act in the manner in which they would act if they believed in the existence of human dignity? Furthermore, does acting in accordance with human dignity mean anything more than

respect in other ways such as respecting autonomy? Some would say yes but Ruth Macklin (2003) responds negatively to this question by referring to the sources that most commonly cite notions of human dignity, namely human rights documents including the United Nations' universal declaration of human rights. Macklin claims that these sources refer to dignity in a sense that appears to account for nothing more than respect for persons in bioethics which demands autonomy, confidentiality and prohibiting unfair practices such as discrimination. I tend to disagree with Macklin that human dignity is a useless concept as she misses the point that attempting to protect human dignity provides us with theoretical support and a deeper sense of why humans deserve respect whether it is by promoting autonomy, privacy or justice.

In any case, while accepting the first conception addressed by Murray (2009) would make the analysis here less contentious because it would strongly reject Jonsson's (2007) advocacy of cyborg athletes and genetic enhancement, it paints a black and white picture of human nature that fails to account for all of its complexities. I agree with Murray's recognition that since not everything that comes naturally to humans is good, the perspective of human nature as a moral guide often leads to awry conclusions and thus should not be used.

Promethean Viewpoint of Human Nature

Secondly, Murray (2009) discusses a notion of human nature that emerges from a heroic/Romantic/Promethean viewpoint of humanity. As already mentioned, such a viewpoint places the highest degree of importance in a human's capacity to indulge their creative will and ingenuity in tinkering with his or her own body. The body is seen as a canvass and can be used as an outlet for artistic expression or to transcend one's humanly

limits. If one assumes this viewpoint, determination and the capacity to advance technology that allows us to manipulate our own bodies must be accepted as the most important aspects of human nature. Moreover, human nature is constantly changing as it evolves with the limits of technology and human imagination.

This understanding of human nature is similar in temperament to transhumanism. According to the World Transhumanist Association (WTA, 2003) – a non-governmental organization that aims to promote transhumanism in research and public policy – transhumanism refers to philosophical thinking that is future oriented and is founded on the idea that the current state of human species is merely a preliminary phase in the development of human nature. In a 2003 document, the WTA formally defines transhumanism as:

- (1) The intellectual and cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through applied reason, especially by developing and making widely available technologies to eliminate aging and to greatly enhance human intellectual, physical, and psychological capacities.
- (2) The study of the ramifications, promises, and potential dangers of technologies that will enable us to overcome fundamental human limitations, and the related study of the ethical matters involved in developing and using such technologies. (p. 4)

Transhumanists are ardent defenders of individuals' personal choice and autonomy in deciding which technologies they wish to use on themselves and which capacities or limitations they would like to exceed. They value our aspirations and ideals

of how we would like to reconstruct ourselves over our current human form or nature. Of course, transhumanists claim that they advocate a society where it is acceptable to refrain from enhancing one's self but in their view progress is measured in terms of persons having greater control such as through technology to transform their lives as well as who and what they are based on their own deepest values.

Clearly, adherence to this second, heroic/Romantic/Promethean viewpoint of humanity would support Jonnson's (2007) promotion of cyborg athletes. For example, a gene doping female athlete would be viewed as rightly challenging societal norms about what it means to be female and alleviating oppression by exercising her free will on her own body. Some however, might use the autonomy-based arguments of transhumanism in order to justify whatever (immoral) ends they wish to achieve by enhancing themselves. In our examination of the first conception of human nature that claims that whatever is of nature or human nature is good, we saw that it failed to account for necessary exceptions. One only needs to reflect on the genocides, murders, rape cases and countless other actions of human beings seriously harming one another to be sure that human nature has potential to serve as a horrific basis of normative judgment. Similarly, the transhumanist advocacy for progression and enhancing ourselves is also naïvely simplistic and dismisses important negative possibilities. While we must respect freedom of choice and the right of persons to modify their appearances, skills and abilities, limitations are justified – especially when harm to society or others is a likely outcome.

For example, morally abhorrent ends could be pursued by virtue of genetic enhancement. A dictator might convince a group of his or her citizens to create an army of brute force and strength to conquer and combat other nations. Should we respect these

people's freedom to choose how they will apply technology to reconstruct and use their bodies in morally objectionable ways? In a similar fashion, some athletes might engage in gene doping in manners that end up destroying the foundation of sport and the experiences of their competitors. For instance, some athletes might exploit cutting edge aspects of genetic technology that provide them with significant advantages but are only available to those with socio-economic privileges. If these athletes also attempt to hide their use from competitors, they might outperform all athletes of lesser means making those athletes' experiences in sport humiliating. This might result in a high drop out rate among individuals of lower socio-economic standing.

A Middle Ground Between Two Extreme Viewpoints of Human Nature

Therefore, the third conceptualization of human nature that Murray (2009) addresses acknowledges that the preceding (heroic/Romantic/Promethean) perspective of human nature may yield poor choices on the capacities that individuals choose since it is left entirely up to each individual. As already explained, Murray depicts a third concept of human nature as a more realistic middle ground between the two previously illustrated extreme ways in which we can understand human nature. It views human nature as complex, multi-layered, to some extent limited and capable of moral and immoral consequences. Because of our potential to do both good and evil which can be evidenced by simply looking at people's actions, I am going to assess which technologies and interventions should be permitted and banned based on whether they promote ethical actions or at the very least do not encourage or predispose us to perform more unethical actions.

This concept of human nature is also necessarily social as human flourishing is impossible without relationships with other human beings and the fact that such a great extent of our identity, aspirations and values are products of our relationships and socialization. As such, this concept of humanity is similar to the understanding of the self that has been used by philosophers embracing the relational sense of autonomy that has already been explained.

Chapter Four

Evaluating the Probable Consequences of Gene Doping with Respect to the Three Values

Fairness

Would Gene Doping Enhance Fairness in Sport?

In the sport philosophy literature, Tamburrini (2007) and McNamee (2007) have developed arguments pertaining to fairness in favour of and against transhuman athletes respectively. Upon evaluation of these arguments, I have noted several flaws in both positions that I assert must be addressed if cogency is to be granted to the arguments upon which each position stands.

The main thesis advanced by Tamburrini (2007) is that the situation where inequality will result from genetic technology used to create transhuman athletes is more desirable than one where no athletes get to reap the benefits associated with genetically induced transhumanism. Tamburrini (2007) evaluates the situation that would be created in elite sport by two distinct species – the transhuman athletes and their un-enhanced counterparts – participating alongside one another. Tamburrini attempts to assess whether this circumstance necessarily offends the ethos of elite sport which he describes using four criteria, namely:

(1) to perform at one's top capacity; (2) to entertain the public; and (3) to transcend the limits of what hitherto was perceived as possible for humans to perform, physically and mentally...(4) sport contests should be characterized by fairness. (pp. 233-234)

At this point, I will bypass discussions surrounding the first three criteria that according to Tamburrini (2007) are promoted by the production of transhuman athletes in

elite sport. This is because at this point I am more concerned with the fourth criterion. Here, Tamburrini claims that fairness will be increased by the integration of genetic enhancement in sport. This is based on the notion that the current distribution of athletic abilities through the normal genetic lottery results in an unfair situation for those who just happen to be born genetically disadvantaged with respect to athleticism. The fact remains that regardless of how much training is involved an individual who is not genetically predisposed for athletic success will not be able to compete let alone win at elite levels of sport. Based on this reasoning, Tamburrini concludes that to the extent that gene doping can provide a means for those individuals lacking innate athletic talent to catch up with others who happen to be blessed with superior athletic abilities, it will improve the fairness inherent in sport. Furthermore, since all athletes will be genetically identical with respect to physical capacities, this leaves other traits and capacities to determine the winners of competitions. According to Tamburrini, these other traits such as dedication and effort are virtues which actually justify the praise and credit that winners are granted since they are in some ways controlled by the individuals themselves.

Tamburrini (2007) recognizes that this argument critically depends on a relevant assumption. Specifically, if gene doping will truly level out differences in genetic traits, athletes already born with genetic advantages must not use it to improve themselves, at least not to the extent that untalented athletes would. Otherwise, gene doping would simply raise the bar of performance levels rather than even out the discrepancy between the athleticism of individuals born with and those born without athletic advantages. In such circumstances, gene doping is clearly a futile practice.

Tamburrini however offers two conjectures in support of this assumption. For one, Tamburrini claims that despite a current lack of sufficiently supportive scientific evidence there are biological limits on the extent to which each physical capacity can be genetically enhanced. I would say that it is more than likely that this biological limit for each genetic attribute is highly variable across the human population. In other words, it seems overly naïve and simplistic to believe that a single natural limit exists for each physiological capacity in all human beings. The apparent complexity of the human body and the uniqueness of each individual seem to suggest that if there truly is a natural limit preset on the degree to which physiological capacities can be enhanced, it is rather plausible that it is not the same for each individual. Thus, I find it quite doubtful that if gene doping is equally accessible to and utilized by all athletes, then a leveled out playing field will result. In stark contrast to Tamburrini's claims, I think that inequality which presently favours those athletes born athletically talented will merely be shifted in favour of the athletes who have higher intrinsic limits preset for the most crucial genetic attributes for their sport.

Tamburrini (2007) offers a second way that I think comes closer to convincing us that gene doping would indeed increase fairness in the way that he claims it will. In particular, he advocates regulations in sport that will allow physical capacities to be genetically enhanced only to a certain extent beyond which athletes would be disqualified. Let us think practically about this possibility. If we are going to accept regulated limits on gene doping in sport, we are going to have to determine a concrete upper limit for each relevant physiological capacity in each sport. In order to truly level out the playing field, this upper limit will minimally have to match that of the human

being that happens to be born with the best possible form of that genetic attribute for the purpose of a given sport. This is also necessary for the sake of fairness since it would prevent disqualifying individuals who just happen to be born with extremely optimal genetic traits.

Even if we imagine for argument's sake that accounting for every individual in the world in formulating this figurative "upper limit" is possible, it is still subject to change in the future with the emergence of new genetic mutations within the human population. Moreover, similar to my objection in the preceding paragraph, Tamburrini's assumption that a single natural limit exists for each physiological capacity in all human beings is critical once again as this option requires that each individual is capable of being enhanced to this limit. The upper limit for each physiological capacity relevant to a sport that will have to be set by regulatory agencies must consider whether all individuals are capable of meeting that upper limit. If not, this is an extremely unfair practice.

Mehlman (2009) suggests an alternative route that could replace banning and testing procedures for genetic enhancement and all forms of enhancement for that matter. This alternative is based on a belief that talent or "pure ability" is not morally valuable and thus should not play a role in deciding the winners of athletic competitions. Like Tamburrini (2007), Mehlman claims that other traits such as effort and dedication that are more worthy of moral credit should determine the winner. Thus, the solution that Mehlman recommends is to compensate for differences in the abilities and talents of competitors by testing athletes to determine their capacities and categorize or handicap them accordingly. The idea of categorization is already exhibited in boxing in the form of weight classes and other sports that segregate athletes by age. If a boxer is twice the size

of his or her opponent, the match up is deemed to be an unfair. However, Mehlman appears to endorse compensation or categorization for each single trait that may generate an advantage. Thus, if we compare the performance of two sprinters and after many trials determine that at maximal effort one is able to clear the starting blocks before a physical reaction is even initiated by the other but that otherwise they are similar in speed and racing ability, Mehlman might argue that we should provide the slow reactor with a slightly earlier starting time. The problem that emerges from this approach to sport is that capacities could not merely be determined by athletic tests since it would be impossible to validate whether or not the athlete was truly demonstrating maximal effort. Rather, some other assessment technique would have to be formulated such as an appraisal of both genotypic and phenotypic characteristics.

Nevertheless, a major objection might be posed to Mehlman and Tamburrini's belief that traits such as effort and dedication can be attributed less to genetics and more to choice and will and so should dictate winners in sport. Specifically, it might be argued that genetic influences impact aspects of effort and other similar traits. To exemplify this, we might entertain the possibility that dedication or sacrifice could be influenced in some way by physiological differences giving rise to diverse subjective experiences of pain and thereby pain tolerance during training (Murray, 2009). Thus, a gymnast might be portrayed as a hard worker because he or she pushes him or herself to practice far more intensely and frequently and much longer than his or her competitors. Because of this, his or her success in the sport is perceived to be due to sheer commitment, effort and determination. In actuality, this gymnast might simply be able to engage in a magnitude of conditioning and training that gives rise to a level of pain that surpasses what others

are able to tolerate but falls short of his or her own threshold for pain. In this and perhaps other ways, perseverance, determination and work ethic can be affected greatly by genetic factors and thus are not necessarily more worthy of our reverence and respect than natural talents. Besides freedom from genetic influence, one must seek another reason to justify our perception that work ethic, effort and other similar characteristics are more laudable than natural talents.

Furthermore, it is conceivable that a more direct link between genes and dedication, perseverance or other similar traits could exist. Research already shows important genetic influences on Attention-Deficit Hyperactivity Disorder (Thapar, Holmes, Poulton & Harrington, 1999). In addition, a study that examined 123 pairs of identical twins and 127 pairs of fraternal twins estimates that 41%, 53%, 61%, 41% and 44% of neuroticism, extraversion, openness, agreeableness, and conscientiousness, respectively – five major aspects of personality – can be attributed to genetic variables (Jang, Livesley & Vernon, 2006). As explained in terms of holistic understandings of the self and autonomy, our desires, wishes, personalities and inclinations are typically understood as the products of the complex interplay between biological or genetic constituents and the environments and manners in which we have been socialized. Therefore, genetic factors and socialization most likely contribute to the development of ambition or perseverance and other personality traits perhaps to a similar degree that they affect athleticism.

Therefore, as I insinuated in my introductory chapter, due to the current lack of scientific understanding on this matter, it seems overly naïve to assume at present that fairness will be enhanced in sport at least in the way that Tamburrini (2007) has claimed

it will. In direct opposition to Tamburrini, I believe that gene doping will fail to level out discrepancies between potential athletes and that other traits that genetic enhancement will supposedly allow sport to exhibit more profoundly including dedication, work ethic and perseverance are not necessarily more morally worthy of veneration or any of the other rewards that emerge from winning and advancing one's athletic career. Consequently, I believe that to persuasively argue for the capacity of gene doping to increase fairness in sport, one must look elsewhere for support.

Both Lenk (2007) and Loland (2009) assume a totally impartial position in principle which Rawls denotes as the "original position" when attempting to explain why sport's current nature conflicts with certain practices of enhancement. According to Loland, the structural goal of sport competitions is *to compare opponents with one another based on their performance of relevant skills while they adhere to the rules*. Recall the Rawlsian notion described earlier that fairness could be characteristic of a practice or activity when the rules that constitute it and the allocations of benefits and burdens incurred through involvement in it are established and accepted by the participants themselves. Fairness requires that those rules that have been reasonably agreed upon as imposable on all involved without regard to one's position in the practice be upheld. It might be argued that athletes accept the terms and conditions that guide their practices with one another. In particular, by entering the sporting arena, athletes might be viewed as tacitly accepting the foundational principle that guides sport and thus should adhere to it. This is what Rawls refers to as fair play. But do athletes really get a say in how sport is governed? And, if no adequate platform exists for athletes to voice their concerns over rules and terms or perhaps a lack of a rule that penalizes overly aggressive violent acts between

players for instance, can we really characterize athletes as deeming the rules and terms as reasonable impositions on all participants?

Deficiency of Athlete Representation in Sport Policy Decision-Making

It should be noted that according to Rawls you must be able to complain about rules you do not perceive as fair. I do not think athletes are given opportunities to reflect on the principles upon which sports are based. They are given two options: accept and adapt to sport as it is or else do not participate. Rawls requires that participants try to eschew reaping the benefits gained through the practice if they do not intend to adhere to the rules. As noted in my introductory paragraph, Schneider (2009) agrees with Lenk (2007) and Loland (2009) on fairness as an essential sporting ideal. However, she firmly argues that sport practices currently treat athletes with undue paternalism thereby violating this ideal. Schneider supports this claim with specific examples. Of particular relevance, she claims that the issue of performance-enhancing drugs should be explored from the perspective of the athlete since they are the central actors affected by them. Schneider sees anti-doping organizations as futile as long as the decisions that are made regarding what should be considered doping and how doping bans are to be fairly enforced fail to consult athletes.

Specifically, Schneider (2009) emphasizes the need for doping regulatory policies in terms of the measures used for testing and the management of test results to adhere to principles of fairness and respect the privacy of athletes. The most effective type of enforcement is one that is randomly conducted with no advanced notice because this type of testing reduces the likelihood that athletes can evade detection. This requires that athletes inform anti-doping officials of their whereabouts at all times. Also, transparency

in decisions to target certain athletes is often absent; some athletes are targeted by anti-doping agencies based solely on suspicion that may be generated merely by a rumour. In addition, some criminalized substances that lack evidence of performance-enhancing effects are also banned and tested for which irrationally makes athletes especially vulnerable to legal penalties. From a human rights framework, Schneider portrays this irrelevant testing as unfair and coercive since failure to consent to testing results in disqualification.

Moreover, Schneider's (2009) critique of the "strict liability" feature applied by doping-control agencies in sport has some implications for the debate on gene doping in sport. Strict liability refers to penalizing a doped athlete in the same manner regardless of whether or not that athlete intended to dope or had any knowledge of the presence of the banned substance within his or her body. Anti-doping agencies justify this principle based on the perspective of the doped athlete's competitors who would be equally disadvantaged due to the presence of an opponent who intentionally doped and one who was unaware that he or she was doping. Fairness would be particularly questioned if this principle would be enforced in the case of embryonic gene doping where the choice was made prior to the birth of the child or in early semiotic gene doping shortly thereafter.

Schneider (2009) blames the disrespect for the rights of athletes by the abovementioned ways in so far as those rights are threatened on the fact that current doping control programs are not athlete-centred. More specifically, Schneider argues that sport-governing bodies should focus on protecting the safety and development of athletes. Athletes should be thought of as persons with rights rather than replaceable commodities or actors perpetuating the institution of sport. This pattern of thinking seems to be

consistent with both Loland (2009) and Lenk (2007) as they both recognize the need to avoid performance-enhancement strategies that require a dependence on the expertise of others. They hold that as a result of a high degree of performance-enhancement measures, athletes lose a significant amount of control and authorship over their athletic performances. From this viewpoint, gene-doping athletes can start to resemble machines dictated by scientists who are motivated by a desire to apply their technological innovations. Thus, as mentioned in my first chapter, a Kantian foundation is clearly embedded in the arguments set forth by all three of these philosophers as they seem to agree that some performance-enhancement strategies reduce the respect for athletes as persons. However, rational adult athletes who freely elect genetic enhancement procedures might contrastingly be perceived as exercising greater rather than less control and authorship over their athletic performances. This view will be explored comprehensively in my section on the conception of humanness. For now, let us consider how fairness in sport might be adversely affected by genetically enhanced athletes.

Would Gene Doping Reduce Fairness in Sport?

From Rawls's perspective, principles or rules that are deemed as reasonable expectations for all participants to adhere to can be consulted in the case that the fairness associated with the practice is in question at any point. As Schneider (2009) points out, the culture of sport seems to exclude athletes from decision-making concerning issues that dramatically affect them the most. There is a lack of channels in sport that encourage athletes to be critical of the policies that guide sport. Perhaps the submissive and non-critical temperament of athletes is shaped by their early experiences in sport. More than ever before, children today seldom play sports in neighbourhood parks and fields where

they are free to dictate their own rules amongst one other. More than ever, North American parents are enrolling their children in adult-organized sports leagues where child athletes get virtually no say in how their sports are run. With coaches and parents constantly in charge, child athletes grow up and enter adulthood accustomed to their passive roles in sport where coaches, trainers and sport governing bodies continue to set the tone for their involvement. So we cannot presume that merely because athletes participate, they perceive all of the rules enforced by sport governing bodies such as the World Anti-Doping Agency (WADA) as fair for all. This begs the question: does an acceptance of gene doping athletes by governing bodies of sport fairly treat all individuals involved in sport? Or conversely as judged from the original position, would a rational individual identify an expectation to refrain from genetic enhancement for athletic purposes as acceptable?

An argument raised against transhumanism that supports the ban on gene doping is the idea that it would represent yet another avenue through which the wealthy segments of the population will get to dominate their poor counterparts. Of course, only those who can afford the application of genetic technology will be able to reap the praise, credit and monetary rewards associated with commercialized elite sport (McNamee, 2007). To reaffirm, I agree with Tamburrini's (2007) critique of this particular argument in which he asserts that just because a technology is initially expensive and therefore only available to wealthy individuals, this fails to sufficiently rationalize the prohibition against it. He claims that eventually all participants of sport will be able to reap its benefits. Moreover, Tamburrini claims that like any other novel medical advancement the contemporary poor are the only individuals that will be disadvantaged due to the inability

to afford the likely expensive treatment. This is because over time all including the poor will likely have access to the technology. I confer that this technology will probably become increasingly accessible to greater portions of the population as it becomes less expensive but it is highly doubtful that the poorest individuals in the world who cannot even afford the basic necessities of life such as clean water and food will enjoy access to these procedures. Still, refusing the advent of genetic technology based on this idea seems hypocritical since this is the case for all luxuries in life. Therefore, McNamee's reasoning in this particular case fails to convince us to withhold this technology.

If we imagine for argument's sake that no prohibition against gene doping exists in sport, does an athlete act unfairly toward his or her opponents by employing genetic enhancement to improve essential capacities needed for the sport? Again, acting unfairly according to Rawls could simply comprise acting in a way that opposes the intention of a practice. So by genetically enhancing themselves athletes reduce fairness in sports if this necessarily represents acting contrary to the purpose of the structural goal of sport competitions. As noted earlier, Loland (2009) describes the underlying objective of sport as comparing competitors with one another based on their performance of relevant skills such as speed in sprint running or horizontal jumping in long jump while they adhere to the rules. It seems appropriate to acknowledge the possibility that not everyone would find this to be an accurate portrayal of the structural goal of sporting competitions. I however see no major objection against accepting it as a fair characterization of the fundamental objective of contests in sport.

Thus, we must question whether and how an athlete, by gene doping, interferes with sport's structural goal of comparing competitors based on their performance of relevant

skills under the auspices of the rules. If gene doping is legalized in sport, it might still conflict with sport by replacing or clouding the relevant skills that it intends to test in order to compare competitors.

Essential Skills of the Sport to Determine Acceptability of Innovations

Michael Sandel (2007) explains how effort is definitely not the only important thing when it comes to assessing athletic excellence. Indeed, the highest athletic ideal for which the public demonstrates admiration are not athletes who merely project maximal effort and dedication but exhibit average or worse levels of athletic performance. The purpose of sport competitions or contests according to Sandel is that they display people's abilities based on both cultivated and natural talents. Thus, a certain degree of natural talent is required to reach the levels of performance and achievement exemplified by top-notch athletes from Michael Jordan to Michael Phelps. So does this mean that genetic enhancement techniques can be valued as a form of developing one's natural capacities like training as opposed to a practice that merely makes a sport easier for an individual?

To answer this question, Sandel (2007) argues that there is a line that is sometimes difficult to identify between technological measures or innovations that cultivate and those that corrupt natural talents. He states that the acceptance of forms of enhancement such as diets, vitamins, performance-enhancement drugs or gene doping should depend on whether they perfect or cloud the essential skills that the sport in question is meant to test. Sandel contends that some technologies run the risk of turning a sport into a spectacle. So how can we determine which innovations corrupt the game rather than make it better? Sandel states that the nature of the sport in question must be

understood in terms of which skills are those that we mean to test in order to distinguish outstanding competitors from athletes that are very good or merely average. A technology can corrupt a sport if it lessens the degree to which those skills serve as deciding factors in the outcome of the game and improves a sport if it causes those skills to become more prominent and clearly decisive of contest results.

To demonstrate, Sandel (2007) explains how the introduction of the shoe would have improved races because it reduces the chances that other factors not meant to play a role in determining the winner will prevent the actual best runner in the race from winning. For example, shoes protect runners from being slowed down by stepping on a sharp object and hurting their feet. Although the running shoe has progressed beyond a protective function clearly displayed by the performance-enhancing role it plays today, the focus here is on the shoe in its earliest form. Thus, the testing of speed or endurance or, depending on the distance of the race, some combination of both becomes more pronounced as the central ability on which competitors are compared. In contrast, Sandel offers wrestlers striking opponents with chairs in the World Wrestling Federation (WWF) as an innovation that corrupts sport in that it fails to take seriously those skills that wrestling contests intend to test. Since it could be argued that the WWF is not an authentic sport, a better example is the Speedo LZR swimsuit banned because it alters body shape greatly reducing race times of those who could afford the expensive suit.

It must be noted that the cases illustrated above are relatively easy to determine. The innovation of wrestlers using chairs as weapons obviously hinders the role of essential skills in wrestling contests whereas shoes in the other example unambiguously downplays confounding factors thereby promoting the role of the skills that are meant to

be tested. The case is not as clear for more controversial technological innovations. An example outside of sport is used by Sandel (2007) to depict the difficulty in applying this principle for the purpose of discerning some innovations that corrupt rather than highlight the essential skills of a sport. This example is the use of beta-blockers by musicians to calm their nerves during performances. Is this a shortcut that disvalues key elements that are prerequisites for any musical performer to be considered excellent? One might answer this question in the affirmative if the musician never has to overcome his or her fear of performing in front of large audiences and if it is believed that a mastery of this fear is a crucial element to displaying excellence as a musical performer. The trouble lies in the fact that composure during performances as an essential feature of musical excellence is debatable. Athletes might also use beta-blockers for their competitions and its application in this context would still be contestable as it depends on what people consider to be essential elements of excellence in the sport under investigation.

Likewise, Adderall – a commonly prescribed drug for treating Attention-Deficit Hyperactivity Disorder (ADHD) – enhances focus and as such is used to improve by athletes to improve performances in competitions and by college students facing academic pressure (Health News Digest, 2010). Because of this, the National Collegiate Athletic Association (NCAA) has recently banned its use by student-athletes other than those who are able to provide medical documentation of an ADHD diagnosis. Perhaps the ability to block out distractions from spectators heckling during important games or opponents in tennis grunting across the court is a significant part of athletic excellence that sets the consistent winners apart from the rest. If this is the case, merely ingesting a pill to acquire this ability might be seen as distorting the game and the mental aspects of

capacities that it at least partially intends to test. In relation to fairness, if athletes enter the sporting arena with an expectation and agreement to the set of central skills and traits that are supposed to determine the winners, contenders who utilize enhancement strategies that conflict with these factors treat their competitors unfairly. At this point, the reader might be questioning how we ought to go about deciding which skills or traits are or should be integral to athletic excellence in general as well as in the particular sport in question to decide the game's results. And, for that matter, who gets to decide on the essential skills of the sport?

Public Opinion to Determine Acceptability of Innovations

Morgan (2009) proposes an alternative conceptual understanding of treatment and enhancement where he claims that the line between these two concepts is socially constructed rather than based on a metaphysical distinction. As such, Morgan feels that if one is to determine which interventions should be categorized as acceptable forms of enhancement, it is necessary to consult public sentiment. In the context of sport, the general consensus of the athletic community that includes athletes, coaches, fans and sporting officials is especially important in pinpointing which practices and substances ought to fall under the category of enhancement and which are seen as acceptable and thus fair. Morgan claims that there has been a recent shift in the public's view of performance-enhancing drugs that, contrary to the view of official sport governing bodies, identifies at least some of them as acceptable.

In an attempt to support such claims, Morgan (2009) refers to a contemporary acceptance of the increased use of drugs such as Ritalin to no longer merely *treat* known pathologies but to *enhance* the performance in a wide array of activities. He also claims

that fans support and want to see extraordinary athletic achievements no matter how they are achieved. As Morgan even recognizes, the evidence he uses to support these sweeping claims are merely several instances that depict this kind of public response within the realm of elite athletics. As a rebuttal to Morgan's contention that the public accepts the use of performance-enhancement drugs by professional athletes, I would point to Mark McGwire, Roger Clemens, Marion Jones and the long list of other scandals where athletes have been caught doping. Upon detection, the typical pattern of the public's response to these athletes' actions culminates in severely tainting the way the public views their achievements and extinguishes the reverence they once held in some cases possibly costing them inductions into the Hall of Fame. I believe these examples greatly contradict Morgan's claim. Thus, fans' reactions show that they do indeed care about how athletes come to achieve their extraordinary levels of performance.

To be fair, it is quite possible that the source of these negative reactions is the fact that anti-doping policies currently mean that any athlete who dopes is thus cheating. Also, in Morgan's (2009) defense, he claims that the lack of apparent public advocacy against anti-doping campaigns is due to the fact that sport-governing bodies are highly undemocratic in nature. It is possible that athletes might not agree with the bans but still refrain from voicing their opinions for fear of being accused of using performance-enhancing drugs and thus tarnishing their reputations.

In any case, Morgan (2009) seems to be arguing that a comprehension of enhancement versus treatment must acknowledge justified shifts in public views as the distinction is not merely a metaphysical or natural one. For Morgan, this approach that appeals to public consensus must translate into what we deem as acceptable practices in

sport. Of course, the views within the athletic community are diverse and thus might conflict on the acceptability of certain innovations. Thus, it might help to at least start by examining which essential skills the community surrounding each particular sport holds as most relevant and important to determining the outcomes within that sport as has been described in the earlier section.

Conversely, Juengst (2009) claims that an interpretation of enhancement that refers to a distinction between the *natural* and *unnatural* is highly relevant to debates regarding gene doping in sport. This eventually allows Juengst to contend that the central concern with the prospective introduction of gene doping into the world of sport is the worry that it threatens what is at the very heart of sport's celebration of human excellence, namely the hierarchial ranking of inherited talents. Juengst's description of sport's central feature seems to be consistent with Morgan's (2009) illustration after all. After Morgan distinguishes between treatment and enhancement, he shifts his focus on discerning between two forms of enhancement, namely those that should be deemed acceptable in sport and those that should be prohibited. Clearly, Morgan does not think that appealing to a distinction between enhancement and treatment gets us very far in contemplating which practices in sport should be permitted or banned. More specifically, the kind of enhancement that Morgan thinks should be banned from sporting practices is that which improves certain innate features that are crucial to performance in the competition as would likely be the case in gene doping. To exemplify this distinction, Morgan refers to anxiety-reducing drugs which he claims are just as guilty of meddling with human qualities that are supposed to be at the heart of athletic tests as genetically engineering athletes. Contrastingly, Juengst sees the key normative theme that is unique to sport – that

genetic variation ought to shape human hierarchies – as morally repugnant. In fact, he claims that if genetically based hierarchies were central to any other domain, they would be perceived as discriminatory or intolerant. So, while one scholar feels that this key feature of sport (genetically-based hierarchies) is despicable, the other feels that it ought to be preserved and thus could act as an alternative test to the traditional treatment-enhancement distinction for determining which substances or practices should be abolished from sport.

To extend this line of thought, it should be recognized that from a Rawlsian perspective of justice as fairness, if a practice is to be considered fair, the rules that govern it must be compatible with justice. As was explained in my preceding chapter, the claim that in order for a practice to be fair, even unjust rules that constitute the practice that have been deemed to be acceptable by the participants must be adhered to makes no sense at all from the viewpoint of justice as fairness. For this reason, we must inquire whether the structural goal of sporting competitions, namely comparing competitors with one another based on their performance of relevant skills while they adhere to the rules is fair. We have already examined major limitations of Tamburrini's argument that gene doping would enhance fairness in sport. In the following section, I will refer to Rawls's principles of fairness in order to assess the most crucial assumption involved in Tamburrini's position. This assumption is that the foundation of sport competitions that seeks to celebrate and reward competitors based on skills and talents for which they cannot entirely take credit since they inherit them at birth is unfair. On the one hand, if the structural purpose of sport is indeed unfair, radically altering the institution of sport via gene doping may promote fairness in ways not yet considered by Tamburrini.

However, if sport's purpose is found to be compatible with fairness, gene-doping athletes would likely conflict with sport's purpose thereby opposing fairness.

Is the Structural Purpose of Sport Unfair?

As explained in my preceding chapter, the Fair Opportunity Principle (FOP) advocates the removal of or compensation for those inequalities that influence sporting outcomes but for which individuals cannot be held liable since such inequalities are not significantly malleable. According to this principle, social structures must be constructed so that stations that provide benefits to the individuals who fill them thereby giving rise to inequalities must be fairly available to all members of society. This conception of the FOP can be described as “leveling out the playing field” in the sense that it advocates the removal of inequalities originating from sources for which we cannot hold people accountable. The principle that two individuals similar in terms of natural ability should have equal opportunities was exemplified in the previous chapter with a practice that such a principle would suggest. The example provided was publicly funded elections that would allow positions of public office to be equally obtainable to non-wealthy and wealthy citizens.

In sport, this principle is evident in various ways such as the compensation for variations in external conditions including weather as well as the compensation for inequalities that are associated with individual differences such as age, sex and in some sports weight. It can be argued that while some forms of compensation are evident in sport some sporting practices fail to fully adhere to the FOP as can be seen with the clear influence of comparative wealth and resources of nations in relation to the distribution of Olympic medals. Seemingly based on the FOP, both Lenk (2007) and Loland (2009)

articulate the need for wealth, equipment and technology to be equally accessible to all competitors or at least standardized through practices. Lenk demonstrates that a necessary but insufficient condition for fairness in sport is to ensure that all athletes perform under the same conditions and have equal access to technology.

Without explicitly acknowledging a link to the FOP, Lenk (2007) seems to provide some sort of rationale for the relevance of this principle to sport as we know it. Specifically, Lenk describes this normative value of sport as based on the idea that winners of competitions ought to earn their victory in virtue of their own merit rather than some other factor over which they have no control.

So does this mean that we should categorize individuals by their genetic traits relating to success in their sport? Or, should we offer athletes lacking these genetic traits pertaining to athleticism access to genetic enhancement technologies? Perhaps we would be inclined to agree with one of these two options if we were to ignore the other principles that should be considered in understanding the notion of fairness that Rawls explicates.

To reiterate, the FOP represents just one of two subparts comprising a single principle. Both Loland (2009) and Lenk (2007) refer to the work of Rawls on justice and fairness in order to endorse their own differing positions regarding gene doping in sport. However, it is of grave importance that a reference be based on an accurate portrayal of Rawls's position on fairness in order to extrapolate its message in support of one's position. The account that has been described by both Loland and Lenk has been critiqued and displayed as misconstruing Rawls's message as an appropriate rationale. Murray (2009) attempts to clarify the misconception that has been perpetuated by Loland

and other philosophers regarding Rawls's position on justice and fairness. Murray explains how Loland appeals to Rawls to support his notion of a FOP. According to the FOP, fixed essential inequalities that exist among us for which individuals cannot be held accountable should be compensated for or eradicated. In truth however, this notion is what Rawls refers to as the Principle of Redress (PR). As has already been outlined, some sport philosophers including Loland and Lenk refer to the ideas inherent in the FOP or the Principle of Redress to infer that fairness would be superior in a genetically enhanced future for sport. Yet, Murray explains how, in actuality, this principle clearly runs counter to the position that is endorsed by Rawls.

While Rawls (as cited in Murray, 2009) agrees that individuals do not deserve their innate capacities just as they do not deserve the socio-economic status in which they are reared, he believes that this fact fails to justify the normative rule that inequalities in natural talents should be compensated for or eliminated in society. Rawls recognizes an important difference between inequalities in natural talents and starting social positions. Specifically, the former unlike the latter can be manipulated so that the special strengths and talents of individuals can serve the interests of all down to the very least talented or the most disadvantaged individuals of society. Rawls argues that this basic structure of society would be advocated if one is deciding behind a veil of ignorance which is void of particular knowledge about one's self including ethnicity, gender or socio-economic status. The Principle of Redress asserts the need for society to address or respond to those conditions or capacities that are imposed on individuals but for which they cannot be viewed as being responsible such as being born intellectually challenged that places them in the least advantaged group in society. But Rawls also believes in adhering to a

fundamental principle of justice that he identifies as the Difference Principle (DP).

According to this principle, individuals are to be permitted, nay encouraged, to exercise and develop their talents in ways that benefit the public good. Thus, Rawls supports a refocused attention on improving fairness in basic institutions by ensuring that the current strengths and talents serve the interests of all and it is certainly not the case, as Loland (2009) or Mehlman (2009) would have us believe, that Rawls advocates the crippling or leveling out of individual talents as through genetic technology for instance.

To elaborate, the second aspect of Rawls's principle of justice as fairness, known as the DP, concerns inequalities between members of society in terms of goods people need in order to survive or live well including wealth and basic and non-basic rights (Richardson, 2005). The DP holds that inequalities in the allocation of such goods are acceptable if they better members of society that are the least advantaged. For example, a police officer's right to place a criminal under arrest is acceptable because it leads to the betterment of society whose members include the least advantaged.

From this, it follows that we can benefit from our own intelligence or some natural talent only if the least advantaged people in society benefit from it in one way or other (Richardson, 2005). Thus, in the third chapter I explained why high physician salaries are accepted because they provide incentive for more people to go through the intensive training involved in medical education and specialization and serve to maintain a certain quality of healthcare for all including the least advantaged groups in society. Using this as an analogy, it is possible to argue that providing rewards for winners of sport contests particularly at the highest levels gives athletes incentives to strive for excellence and devote their lives to their sport of choice. As a result, allowing individuals

to display their athletic talents might inspire others in society including the least advantaged youth who look up to athletes. Seeing the praise, admiration and credit with which we bestow our top athletes might encourage others to work hard and practice to perfect their skills and talents whatever they may be. This could in turn promote a sense of ambition and a drive for excellence in all domains including the workplace and education. Overall, this could promote dissatisfaction with mere mediocrity leading to a more productive society. Teachers, scientists, engineers, researchers and others may be inspired to cultivate their talents and perform their work to the best of their abilities. This in turn will benefit all in society including the least advantaged. In this way, the structural goal of sport can be depicted as adhering to Rawls's account of fairness.

Murray (2009) refers to an additional contribution made by Rawls in an attempt to determine how human nature can be understood in a way that the demonstration of natural talents in sport is morally acceptable. According to Rawls (as cited in Murray), as human beings we possess the capacity to create and pursue our own conception of the good life. Rawls seems to value the right of citizens to flourish by pursuing ends that they deem are valuable to human life. Murray relates this to sport by illustrating how the demonstration of athletic talents through sport competitions can be a part of an individual's conception of the good life in the same way that artistic or other kinds of talent can be perceived as life-enriching channels. Athletes and fans of sport can thus respond to allegations that sport is nothing more than a trivial endeavour and justify it as a worthwhile pursuit based on the fact that they value the experience of physical embodiment and the pursuit of excellence. Therefore, such individuals can effectively argue that summarizing sport merely as a vehicle used to establish genetic hierarchies

ignores the valuable intrinsic rewards that athletes gain from the insightful process and rich experience of testing one's self in terms of physical and intellectual limits as well as limits of character that can occur alongside other athletes who are striving for the same goal.

Thus, Murray's (2009) reference to the DP in conjunction with his second reference to Rawls for a successful dismantling of the argument that criticizes sport for its supposed fundamental objective of celebrating genetic hierarchies provides a solid foundation upon which a favourable opinion of sport and its social value can be redeemed. It also leads to Murray's optimistic forecast for sport as it continues in its evolution. Clearly backed by the ideas of Rawls and Murray, I believe that we have successfully refuted the need to implement in sport some sort of practice such as gene doping in order to establish equality in genetic traits. With that said however, Murray also does not affirm an objection – either explicitly or implicitly – against performance enhancement techniques in sport or the emergence of gene doping in future sport. Such practices do not seem to conflict with Murray's notions of a just society or the values of embodied excellence and human flourishing through the moral capacity of individuals to determine their own conception about what is good in human life.

Is Sport's Alleged Unfair Structural Goal Unique?

In light of the wide array of talents that exist, every individual can find at least one thing that they can do reasonably well. There is no need to submit one's self to gene doping in order to compete with top athletes. Excluding less athletically inclined individuals from participating in and incurring the rewards associated with elite sport

might be construed as a discriminatory practice but leagues exist for all levels of athletic ability. Thus, people can still be involved in sport by joining less competitive leagues.

Additionally, if we accuse elite sport in particular of being inherently unfair, why stop there? It seems unfair and inconsistent to exclusively accuse sport of selectively awarding and excluding individuals to some extent based on genetic or pure abilities when so many other social practices such as hiring practices are equally guilty of doing the same (Murray, 2009). For example, other domains of society such as business and the entertainment industry credit talent just as much as athletics. I do not complain that I was born lacking any acting or vocal talent or that I am unable to compete with the Picassos, van Goghs, Renoirs and other visual artistic geniuses of the world. If we hold that it is unfair to those born athletically disadvantaged to praise and reward top athletes, we should apply this allegation to all other channels of acquiring success and recognition based on one's talent. For instance, the Oscar awards is an annual ceremony that celebrates and rewards the best performances of actors, directors and others involved in the production of films. Like the Olympics or the World Cup, an individual must be born with a phenomenal degree of natural talent in order to qualify let alone win such an award. In this way, the argument that sport competitions are unfair would also have to be extended to nearly every aspect of society including employee-hiring practices and university enrolment procedures.

Of course the fact that Tamburrini focuses specifically on the unfairness of sport while his argument seems to ignore the fact that the same can be said about mostly all other societal practices does not redeem sport of its unfairness charges. Indeed, it is possible that nearly all our social practices are based on an unfair underlying foundation

supporting the cliché expression that “life is not fair.” What I am trying to accentuate is that Tamburrini could still be right to think that sports are inherently unfair just not due to the reasons he provides as described earlier. Therefore, let us consult the perspective that Rawls advocates, namely the veil of ignorance to more deeply evaluate Tamburrini’s contention.

What Would An Athlete Determine from Behind the Veil of Ignorance?

Simon (2004) adheres to the approach fostered by Rawls for decision-making from behind a figurative “veil of ignorance” of which I have previously referred to as the original position to inform us on whether the ban on performance-enhancing drugs is justifiable or fair. According to Rawls, fair practices can be determined through consideration of which actions could be regarded as acceptable universal principles or practices. Simon argues that an impartial and rational athlete would judge a failure to prohibit the use of performance-enhancing drugs as irrational since they impose a significant risk of serious health complications to all users but in the absence of a ban, nearly everyone would likely use them so that most athletes would no longer gain advantages from their use. This is because incurring significant competitive advantages through performance-enhancing measures relies on some athletes not using them.

Therefore, a small proportion of competitors at most might gain minimal advantages from (gene) doping but the veil of ignorance perspective requires that the athlete considering lifting the ban does not know if he or she falls in the category of athletes who would benefit from doing so. This is because the “veil” hides the athlete’s personal information such as the level of his or her athletic abilities and skills without use of performance-enhancing drugs and how well relative to others his or her body would

respond and improve due to performance-enhancing agents. On the other hand, what the impartial athlete could be sure of is that he or she will face a risk of endangering his or her own health since the potential adverse consequences indiscriminately affect all athletes who use performance-enhancing drugs or gene doping for that matter. Thus, using performance-enhancing drugs or gene doping would not be accepted as a universal practice from a rational and impartial position as the risks involved might only be justified if one knows that he or she would gain considerable benefits. So, because rational impartial athletes would not support everyone doping, athletes who choose to use performance-enhancement drugs exempt themselves and treat their competitors unfairly.

Simon (2004) mentions potential criticisms that opponents would likely direct at the conclusion just drawn. First, benefits produced by universal usage of performance-enhancing drugs beyond the advantages gained by individual athletes might be considered from behind the veil of ignorance. For instance, Simon describes the possibility that an impartial athlete values the higher competition levels and overall better performances in sport that would accompany widespread doping among athletes. The degree to which amplified performance levels across the board so to speak is valued would surely affect the cost-benefit analysis described earlier as this could conceivably surmount the costs associated with the potential health risks of doping. This demonstrates the shortcomings of Rawls's veil of ignorance that stems from potential areas of disagreement concerning values. However, Simon remains confident about his viewpoint based on the presumption that because sport-governing bodies are authorized to decide on doping and similar matters, it is reasonable for them to focus on that with which they are normally and appropriately concerned. Namely, competitive advantages that exclude

atypical values athletes might hold such as enhancements in muscular strength over and above safety and health. Of course, this presumption seems reasonable but could very well be critiqued as well.

Lenk (2007) explicitly states that simply allowing practices of enhancement in sport such as gene doping would not only fail to guarantee equality of opportunities but would also reduce the authorship that athletes have for their own performance as the significance of training and effort is as a result reduced. A deeper assessment of the fairness principles might indicate the Kantian notion that athletes should always be treated as ends rather than merely as means. This implies that gene doping along with all other potentially harmful performance-enhancing technologies that require athletes to rely on the expertise of scientists should be banned. Similarly, Lenk argues that if doping is permitted, the health risks for athletes may be heightened as many would repeatedly seek evermore effective means of enhancement that are potentially more invasive and harmful. In an effort to protect athletes from potential coercion or harm, Lenk feels that it is in the best interest of all athletes if enhancement practices are minimized. Furthermore, he argues that doing so allows the sporting world to get closer to a state of equal opportunities.

Autonomy

Harm, Autonomy & Hard Paternalism

In his address on gene doping and sport at the 2002 Banbury Workshop, Dick Pound, former vice-president of the International Olympic Committee (IOC) and president of WADA (as cited in Schneider & Friedmann, 2006), can be accused of attempting to impose the rules of sport regarding prohibited practices and substances onto

physicians by masking it as a medical obligation. Pound realizes that the only way to rationally convince medical practitioners of their own responsibility to help enforce the ban on performance-enhancing drugs in sport is to demonstrate that to condone or prescribe those banned substances conflicts with their own profession's ethical principles. Thereby, Pound claims that a physician who prescribes banned substances to athletes or who simply allows them to use banned substances violates the Hippocratic oath that requires of them to "do no harm." The assumption that is embedded in this accusatory claim is that all the substances that are banned by WADA yield harm to the user. However, not all of WADA's banned substances are harmful if administered in particular doses. Also, in his address, Pound acknowledges a response from physicians on the matter which reasons that if athletes are going to use banned substances anyway, it is safer if they are medically monitored. In other words, it is likely more harmful to the patient seeking access to a banned form of performance-enhancement if a physician turns him or her away.

Pound dismisses this reasoning and does not explain why he sees no merit in it as an argument against his viewpoint. On this matter, it appears as though Pound does not fully understand the common practices of physicians in employing the lesser of two evils. To exemplify this conventional norm, one might consider that physicians commonly prescribe methadone – an otherwise illegal drug – to treat heroine addicts despite its many harmful effects. This treatment is justifiable as the alternative course of action – standing idly by while addicts attempt to face their addictions all on their own – is relatively more dangerous for the patient. Another example that demonstrates this strategy used by physicians is morphine that is associated with health risks and addictive

properties but is often prescribed to patients experiencing short bouts of intense pain such as just after surgery.

In fact, given the infancy of scientific understanding and research behind gene doping, we cannot rule out the possibility of a future in which such procedures can be safely administered with no serious side effects. It is interesting to note that despite what might be implied by Pound's address at the Banbury Conference, this would not change WADA's stance against gene doping as it has gone on record stating that "the use of genetic transfer technology...should be prohibited as it is contrary to the spirit of sport *even if it is not harmful*" (WADA, 2003, my emphasis). Furthermore, Pound explicitly states that one purpose of the conference was to inform all relevant parties of the appropriateness and level of urgency in doing their part to combat gene doping for sporting purposes. Yet, his argument that physicians should withhold gene-doping techniques from athletes is solely dependent on potential harm that could easily be rejected if research allows it to evolve into a reasonably safe practice.

Moreover, Pound (as cited in Schneider & Friedmann, 2006) claims that gene doping is much more serious than erythropoietin (EPO) and anabolic steroids; yet, he fails to explain which features make it more serious and why this is necessarily the case. What is evident in WADA's position advocated by Pound is a hard paternalistic stance that endorses intervening in the actions of fully informed and rational agents with respect to adult athletes that is justified partly by a perceived potential danger in addition to the protection of the spirit of sport.

From the perspective of hard paternalism, to merely educate and inform participants of the dangers they assume when taking performance-enhancing drugs is

inadequate. Policies are thus in place and enforced against users upon detection. Anti-doping policies may coerce some athletes into refraining from performance-enhancing drug usage. Rational and competent individuals who are informed about the risks and still want to use them are coerced against doing so. From this perspective, some advocates of autonomy might object to a ban on performance-enhancing drugs and gene doping on the grounds that autonomy requires unconstrained individual choice. Yet, the ban could be justified as a measure to reduce the pressure on those who would rather not use performance-enhancing drugs to act contrary to their inclinations and judgment just to be able to compete. Below is an depth illustration of this rationale that is used by Sherwin (2007) and other advocates of relational autonomy.

Adults & Relational Autonomy

Sherwin (2007) raises the issue of autonomy and paternalism with respect to genetic enhancement that would be performed by competent adults as opposed to children. Her viewpoint challenges the free choice argument that advocates the autonomous choice of fully informed and rational adults to employ genetic enhancement. The only exception in which this perspective would recommend restraining choice is if enhancement procedures entail an excessive degree of danger to the individual. Sherwin's response to this argument is that it rests on a traditional interpretation of *autonomy* that simplifies it into individualistic terms. This understanding of autonomy suggests a perception of individuals as completely unaffected by their societal surroundings when making decisions. For this reason, Sherwin proposes a relational approach to understanding autonomy which I have already described as being based on a recognition

that people form their values through dialogue and interactions with others in numerous contexts.

Sherwin (2007) demonstrates the superiority of this relational understanding of autonomy over an individualistic interpretation referring to the example of cosmetic surgery critiqued in feminist theory literature. From the individualistic interpretation of autonomy, females that alter their appearance for aesthetic reasons appear to be acting autonomously. However, it seems naïve to ignore the societal pressures that are on women to look a certain way. The prevalence of women undergoing cosmetic surgery heightens the urgency for un-enhanced women to do the same and thereby undermines the autonomy of these women.

This analogy aids us in using the perspective of relational autonomy to explain the probability that only the very first athletes who decide to utilize genetic enhancement techniques will be exercising their freedom of choice or autonomy. As already described above, athletes who subsequently follow the lead of these initial users will likely be giving into the pressure to genetically dope in order to remain competitive in a genetically enhanced world of elite sport. Thus, Sherwin (2007) argues that the prevalence of gene doping will reduce autonomy overall and widespread use due to this coercive environment could lead to serious negative consequences for the collective and long-term interests of athletes.

This reflects the relational approach to autonomy used by Sherwin (2007) to assert that we ought to be extra careful when contemplating the introduction of emerging new services that could potentially enforce oppressive forces on individuals. In this manner, autonomy of the first group of athletes who want to engage in doping appears to

be restrained so that the autonomy of the second group composed of athletes not wanting to enhance their performance using drugs is protected. On the other hand, if the ban was lifted, the autonomy of the first group of individuals who would choose to engage in doping but only in the absence of a prohibition appears to be endorsed at the expense of the autonomy of the second group of athletes not wanting to use performance-enhancing drugs. Thus, it seems that with a ban or without one, the autonomy of at least one set of athletes is compromised while that of another is safeguarded.

Yet, prioritizing the autonomy of the second group above that of the first group might be justified as the choices of the former unlike the latter do not likely lead to significant health risks. It is possible that some critics will be unmoved by my reasoning behind valuing autonomy of one group over another because the actions and choices of the former but not the latter endanger their health and that of their competitors. Furthermore, opponents might assert that autonomy is no less worthy of being valued and upheld because we do not agree with the choices that emerge from protecting it.

Moreover, a critic might also refute the very premise that we should be concerned with gene doping athletes since they place pressure on other athletes to employ the same measures in order to remain competitive. As described in the third chapter, Simon (2004) confronts the question of whether it is immoral for an athlete to use performance-enhancing drugs creating circumstances that force other competitors to decide between following suit or otherwise refraining from using and therefore becoming significantly less or no longer competitive. Recall from my preceding chapter Simon's point that we do not find it morally problematic for athletes to train intensively and thereby put pressure on their competitors to train just as intently or for eager students to study

incessantly setting the bar extremely high for their fellow classmates on an exam where the bottom 20% fail for example. Even if others feel coerced to engage in more effort, eager and hard-working students and athletes alike are perceived as doing nothing even remotely wrong. As evidence, such behaviours and actions are often encouraged because they generally result in superior performances.

As a response to the possible objections described above, I feel the need to depict an alternative account that might come closer to winning over the type of critic described in the two preceding paragraphs. First, I find it reasonable to contend that valuing autonomy does not necessarily mean granting free choice to engage in any practice any one should choose. From this viewpoint, the prohibition against gene doping could be framed paternalistically as being in the best interests of *all* athletes. It is also possible to argue that long-term autonomy is actually promoted in the first group of athletes who desire to engage in gene doping as well in the sense that they might be dissuaded from employing these practices due to the existence of a ban. Indeed, by protecting the health of these athletes, the ban could be perceived as a force that promotes their autonomy. This is based on the premise that if athletes suffer from severe health complications initiated by gene doping, it might become impossible for them to live fully autonomously. For example, coercing adults from using recreational drugs such as cocaine and heroin through illegalization and enforcement can be seen as valuing autonomy since users can become severely dysfunctional and thus less able to care for themselves and live their lives in the ways in which they rationally would desire. Drug use might also lead to death in which case speaking of the person's autonomy ceases to even make sense. A similar example of restricting people's autonomy in order to protect

their autonomy in the future includes restricting the public from swimming in certain areas of open water perhaps due to dangerously high tides or pollution.

With that said, I am fully aware that this argument is not free of any weaknesses or limitations. For instance, the strength of the analogy of illegal high risk recreational drugs used to justify the ban on gene doping is weakened if one considers that society accepts the choice to use cars as transportation devices despite the risks of paraplegia, quadriplegia or death associated with motor vehicle collisions resulting in significant losses in autonomy. Undoubtedly, to be stripped of one's permission to drive represents a considerable restraint on autonomy. That is not to say that in some cases such as with blind or intoxicated drivers it is not permissible to revoke their licences. This exception highlights the fact that we typically justify impeding one's autonomy when a high risk of harming others exists. This is what John Stuart Mill, a noted 19th century philosopher, depicts in his Harm Principle which claims that we are only justified in constraining the liberty of competent rational persons when harm is posed to others rather than solely themselves (as cited in Simon, 2004). Thus, it is conceivable that recreational drugs are illegal specifically because of the harm users can inflict onto others when they are under the influence of these substances. Similarly, we might base the ban against gene doping on the fact that it is harmful to the user but more importantly to others in that it coerces them to do the same in order to compete.

Of course, as described earlier, Simon (2004) finds that this argument involves a much too loose use of the term coercion as all other competitive environments can be construed as coercing individuals from freely choosing their actions. But, Simon still supports the ban at this time despite the abovementioned possible objections. His

reasoning is based on the fact that no athlete should be allowed to create conditions in sport that push competitors to use performance-enhancing drugs like steroids since they are linked to potential health risks unlike training or diet regimens for example which may be innocuous if appropriately formulated and carried out. I agree with Simon that this argument may perhaps be rejected upon further inspection with respect to the level of harm actually posed as a result of using performance-enhancing drugs. Yet, due to insufficient scientific evidence available at present, we must approach this genetic technology with forethought and not be foolhardy in welcoming its use by athletes. Consequently, while it may be an imperfect solution, the presence of a ban against gene doping at least until we can add more relevant pieces to the puzzle of our scientific understanding of the dangers that might come out of it is indeed justifiable. In conjunction with other arguments supporting the ban from the perspective of either fairness or human nature, we must remain vigilant with respect to protecting the environment of sport for competitors that want to compete but do not want to engage in potentially dangerous practices.

A More Comprehensive Evaluation of Potential Harm

In addition to his evaluation of fairness in sport, Tamburrini (2005) also assesses how paternalism and autonomy are implicated through germ-line genetic modifications of embryos. First, he argues that prior to the initiation of genetic engineering for athletic enhancement purposes it will be developed for medical therapy applications and so it will most likely adhere to reasonable levels of safety. Tamburrini foresees it as being no more harmful than contemporary elite sports training measures. Of course, genetic enhancement of athletes might find its way into sport prior to scientists figuring out how

to make genetic engineering reasonably safe. In fact, WADA acknowledges past trends where drugs that are still in the experimental phases of research often manage to enter the athletic world and this is why it has already devoted funds to developing gene doping detection methods (Haisma & de Hon, 2006).

One such medical advancement that was not completely safe but still entered the realm of sport is the genetically engineered synthetic version of erythropoietin that is commonly known as EPO (Mayes, 2010). Although EPO was developed for the medical purpose of producing red blood cells in order to improve the oxygen carrying capacity of anemic and cancer patients, it still can lead to strokes or heart attacks due to excessive production of red blood cells that thickens the blood (Mayes, 2010). This apparent risk however is justified in medical settings where physicians and/or nurses can minimize the risks through proper regulative monitoring. Like blood doping that was described in my introductory chapter, some runners use EPO to enhance their endurance despite the risks involved particularly if not administered by a physician. Medical procedures that are performed by individuals lacking medical training as would likely be the case for athletes seeking out greater advantages over their opponents run higher risks to the subjects' health. This might simply lead critics to assert that all this argument does is highlight the need to lift the ban and thereby reduce the prevalence of athletes reverting to "black market" procedures. Yet, whether there is a gene doping ban or not, athletes will likely pursue unprecedented applications of these techniques that go well beyond medically regulated recommendations. Thus, even if genetic enhancement is reasonably safe in a medical setting, it might not be so in an athletic context where athletes, coaches and trainers are eager to push the boundaries of safety.

Moreover, since genetic engineering is a fledgling medical technology, it is very difficult to predict the long-term and unanticipated consequences associated with inhibiting, replacing or introducing genes. For instance, gene therapists were able to completely alleviate a severe immune deficiency in some children by inserting a normal gene while three other children in the study ended up developing leukemia as a result of the introduction of the foreign gene (as cited in Bishop, 2005). As it turns out, insertion of the normal gene set off silent tumor genes in these individuals. So while we might be able to modify a single phenotypic trait by genetic alteration in ways that could enhance athletic performance, we simply cannot forecast the way bodies will react to such a change. Perhaps other phenotypic changes will result directly from the genetic change or indirectly by way of awakening or inhibiting other genes as in the above example.

Natural selection is a phenomenon that is based on the idea that a population of a species over generations will be increasingly comprised of individuals with certain traits. These traits are selected on the basis that they aid their carrier's survival in the face of forces such as viruses and living conditions that were present in past generations or traits that made it more likely that one would conceive children and that their offspring would survive. For example, human populations living in tropical regions of Africa have consistently been exposed to the Malaria virus resulting in a high frequency of the HbS allele – a mutated variation of the Hemoglobin gene – in the population of the world descending from these populations (Kwiatkowski, 2005). The reason that this allele has been naturally selected in this particular population is that inheriting one allele of this genetic mutation from either parent results in greater tolerance to Malaria. However, the downfall for its carrier is that it might be passed on to his or her children and if the other

parent also passes on the mutated allele, this gives rise to a condition commonly referred to as Sickle cell anemia. This disease is associated with serious health complications and can be fatal. This lesson from nature reminds us of the potential dangers involved in picking and choosing genetic traits. After all, we are in no better position than the forces that spark our population's evolutionary development in determining which genetic traits are desirable and will not be accompanied by adverse effects. It is true that we may be able to pick out traits that could aid our survival or successes in certain endeavours such as athletics but who is to say that we will not simultaneously invite defects and make ourselves, and for that matter, our offspring in the case of germ-line genetic engineering, susceptible to noxious effects? Autonomy is undoubtedly restrained in children who are impeded by health difficulties arising from either somatic or germ-line genetic engineering.

What I am trying to accomplish through the past few paragraphs is to convince the reader that Tamburrini unjustifiably brushes off the plausibility and severity of health consequences that could accompany gene doping and what this implies for the value of autonomy. However, I am not at all denying that over time our understanding through genetic research might permit us to forge ahead with genetic engineering while avoiding or at least minimizing health dangers potentially associated with these alterations.

Children & the Right to an Open Future

Assuming that it is true that gene doping will not yield serious side effects, let us examine Tamburrini's (2005) argument that the autonomy of gene doped children will not be impinged in the sense that it will reduce the individual's range of possible actions. Tamburrini argues that gene doping will not necessarily hinder people's autonomy by

depriving them of control over their own lives and future. A parent is already allowed to make choices that for better or worse impact his or her child's future directions.

Tamburrini claims that for the same reason that we do not disagree with education in general simply because a bad education could reduce a child's horizons, we should not object to gene doping because parents could use it to coerce their child into a future of elite sport. Furthermore, Tamburrini states that it would be hypocritical to set higher standards for genetic enhancement. In summary, making a child predisposed to a life of athletics does not necessarily entail a denial of that child's personal autonomy. In fact, Tamburrini claims that if children are made aware of the fact that they have been genetically pre-programmed to excel in a sport, this knowledge will empower their decision-making with respect to their future. Also, if a child knows that he or she has the strengths necessary to become an elite athlete, this could relieve him or her of anxiety that may come with uncertainty about one's future. Thus, Tamburrini concludes that genetically engineering a child's athletic ability will only add to the set of skills and capacities that the child has to work with and could open up an opportunity without necessarily eliminating others.

As described in my first chapter, van Hilvoorde (2005) agrees with Tamburrini (2005) on the notion that genetic enhancement is associated with a risk of threatening an individual's autonomy rather than necessarily implicating an essential reduction in autonomy. However, discord between the two authors arises on the matter of the severity of that risk. Specifically, van Hilvoorde claims that Tamburrini inaccurately perceives the risk as reasonably low because he fails to recognize the enormous influential power that genetic engineering a child will have on directing that child's choice of future. According

to van Hilvoorde, this special influential power associated with genetic engineering is rooted in the fact that its changes are more fixed than the imprints left by education as it is relatively much easier to re-educate one's self than it is to reverse germ-line modifications that were performed at the embryonic stage of life.

Whether this is the case or not is up for debate. It is difficult to speculate on the level of difficulty or whether it would even be possible to modify certain traits post-birth. However, I find it conceivable that characteristics that are only or only *significantly* shaped during particular developmental phases of fetuses, infants and children are features that are not changeable or at least not radically so later on in life. To exemplify, consider the following example. Humans normally have 23 pairs of chromosomes – structures in our cells that are made up of DNA and protein. Down Syndrome is a condition that results from having an extra (third) copy of the twenty-first chromosome. One's cognitive and physical development is greatly affected due to this genetic abnormality. Let us suppose that upon reaching adulthood, a man with Down Syndrome decides that he would like to alleviate himself of this condition. Assuming that it is theoretically and practically possible in the lifespan of this individual (or even for that matter) to use genetic technology to remove the extra copy of the 21st chromosome, the imprints left on the individual by this defect are most likely irreversible. Perhaps the only way to cancel out or modify the effects of Down Syndrome would be to turn back the hands of time and excise the third 21st chromosome shortly after this person's conception if this were possible.

Similarly, the environment and conditions in which one is reared in early years has an enormous impact on development such that a person with the genetic makeup for

tallness can still be short in adulthood if he or she was poorly nourished throughout childhood. This example illustrates some cases in which changes made early on are fixed. However, although education represents an environmental condition, as does nourishment, it is different from nourishment because our height only increases during a certain period in our lives whereas we can almost always supplement and re-educate ourselves. In other words, in the same way that a plant cannot be revived if it was not adequately watered and nourished during the early stages of development, if I start to consume a healthy and nutritious diet at the age of twenty-three, this cannot make up for a poor diet all through the years that are pivotal for height growth and make me taller. Thus, it is likely that effects due to changes made by our parents, whether during embryonic or early childhood development, cannot be altered to a significant degree by genetic modification.

Additionally, the risk of reducing the range of opportunities available to individuals is compounded by the fact that dramatic germ-line changes could be mal-adjusted to future conditions since they would be made without information regarding conditions of and thus demands on future generations.

Also, van Hilvoorde (2005) agrees with Tamburrini (2005) regarding the resemblance described above between genetically engineering good athletes and early selection or sport specialization that occurs in elite youth athletics. However, due to evidence supporting the potentially harmful effects associated with the latter, van Hilvoorde does not identify it as an acceptable practice and thus dismisses the similarity as a reason to accept the genetic pre-programming of children into ideal athletes.

However, van Hilvoorde (2005) does not divulge the details of the types of harm associated with early specialization in sport for the purpose of intensive training and development at elite levels. Thus, there is room to go into further discussion on how early specialization in youth sport can be seen as an undesirable state of affairs. This will in turn strengthen the claim that because early specialization is analogous to gene doping in youth sport, this is actually a reason to reject gene doping for child athletes rather than excuse it from moral scrutiny.

To elaborate, many youngsters today are essentially forced to specialize in one sport to which they devote all of their time and effort. This trend is likely responsible for the amplification in burnout experienced by child athletes. Roger Grillo, Brown University's former hockey coach and current regional manager for USA Hockey's developmental program, claims that "burnout" is the root cause for drops in minor hockey participation (Burge, 2010). Furthermore, he partially blames overzealous parents who rationalize the costs associated with highly intense participation by the potential long-term extrinsic rewards of the sport such as securing financial benefits through professional careers or college scholarships. This logic often serves as the driving force behind pushing a child to concentrate exclusively on one particular sport all year round.

In addition to mental health concerns, early and intensive specialization in one sport without sufficient rest periods or off-seasons bears physical health consequences for young athletes. Permanent damage can occur when children are pushed too hard to over-train and win while their bodies are still rapidly growing. Empirical evidence supports this premise as drastically high rates of musculoskeletal injuries and various other physical injuries are found in high performance youth sport (World Health Organization,

1998).

Considering the staggering statistics that are available, it is unsurprising that competitive sport is one of only a few domains remaining that have not yet implemented the international child rights standards and norms (David, 2005). But, as I alluded to earlier, the fact that all of the abovementioned adverse consequences associated with early specialization are implicitly condoned does not mean that we should permit all other similarly noxious practices in youth athletics. If anything, early specialization in youth sport illuminates the need to prohibit gene doping of children for performance-enhancement purposes.

To demonstrate further, many parents spend a fortune rearranging their lives geographically and economically in order to support their children's specialized "careers" in sports. Young players might begin to feel an immense degree of pressure once they realize the emotional and financial investments that their parents make in their athletic endeavours. This realization might result in young players competing merely to satisfy their parents' desires for success and return for their investment. If the child has an unsuccessful sport's career, loses a particular game or even fails to carry out a single play to the satisfaction of the parent, this could yield deep feelings of guilt (Cumming & Ewing, 2002).

Now imagine a context in which parents also invest in gene doping for their children. Undoubtedly, it is possible that this will result in some parents and coaches feeling more justified in blaming their kids for their failures. Even if parents and coaches do not blame children for failing to excel, gene doped children might feel excessive pressure to perform given that any weakness in their performance would likely be

attributed to a lack of effort or laziness. This could very well create anxiety problems and the feeling that it is virtually impossible to live up to the extremely high expectations set by parents, coaches, fans and teammates given that they have been genetically designed to succeed in sport. The child is bound to feel an enormous amount of pressure and stress that can be highly damaging to one's well being. The negative effects of these high levels of stress are compounded by the fact that children may very well possess insufficient mechanisms for coping. If one stops to consider the child's perspective in such high stress-evoking circumstances it is difficult to conceive the plausibility of a genuine joy for the game or self-fulfillment and other phenomenal intrinsic values that sport has to offer its participants.

Still, parents might justify pushing their children into a life of elite athletics based on the belief that it represents an avenue through which a child can develop various virtues including ambition and resilience. It might also be argued that these help ensure productive adult living. Additionally, elite sport can promote a long-term habit of physical fitness. Thus, it can be argued that since a healthy lifestyle reduces one's risk of adverse health effects, which would limit participation in many activities, the right of children to an open future is actually enhanced by this kind of intense participation in sport (Russell, 2007). To achieve these benefits attached to elite levels of sport, early and intensive specialization in addition to genetic enhancement can be used to ensure that the child maintains competitiveness.

A somewhat obvious counter-attack to the list of benefits associated with pushing a child to pursue success in sport is that the extent of harm imposed by pushing children may be inappropriate with respect to the ages of these athletes. The degree of risk could

exceed what is required to obtain the virtues that the abovementioned counterargument esteems. In addition, the habit of leading a healthy lifestyle can be gained just as well through intermediate or recreational levels of sport (Dixon, 2007). Additionally, at all levels of sport one can work on skills such as character development, stress management, team cooperation, problem-solving and communication skills (Martin, Dale & Jackson, 2001; Walker, 1993). Thus, the positive skills and virtues that may be fostered through sport can be mastered in types of participation that do not yield negative effects associated with an overemphasis on winning and career advancement. So if enhancing the genotype of children to make them better athletes is not worth the risks of harm involved, are any applications of genetic enhancement defensible? Conversely, are there any traits of which genetic enhancement might be justified?

Does it Matter Which Traits are Enhanced?

Brown (2009) briefly suggests an alternative to the treatment-enhancement distinction that he claims can shed some light on future applications of genetic technology where benefits might outweigh the costs of unequal access. Brown states that the pursuit of enhancing general-purpose capacities that assist individuals in obtaining primary goods of human life could represent justified applications of the technology. Brown bases his argument that one cannot justify enhancing narrowly defined traits such as particular athletic capacities on his speculation that such practices will become futile in terms of generating athletic positional advantages when they become routinely practiced.

Also in contrast to Tamburrini (2005), van Hilvoorde (2005) selectively supports the practice of genetically enhancing traits such as intelligence, memory or health, which can be identified as serving a general-purpose but opposes specific-purpose forms of

enhancement such as pre-programming a child to excel in sport. The difference between these two types of enhancement is that, as the name suggests, specific-purpose forms of enhancement are intrinsically linked to a clear and distinct goal. This division between general- and specific-purpose forms of enhancement allows van Hilvoorde to further illustrate the failure of Tamburrini's education analogy since, while education opens the range of options available to a child, genetic enhancement for specific athletic purposes more clearly threatens a child's right to an open future. To conclude, I agree with van Hilvoorde who regards pre-programming a child to excel in sport as resembling indoctrination more closely than education. The distinction between general- and specific-purpose forms of enhancement emphasizes the importance of determining the intention that precedes the choice of genetically engineering a child.

Accordingly, from the perspective of autonomy, the innovation of genetic enhancement is morally ambiguous. However, its application and the motivations behind it can be profoundly worrisome. For example, an advocate of autonomy would likely invite the prospect of employing genetic technology for therapeutic uses such as alleviating Down Syndrome but would oppose governments creating super-armies to obliterate and oppress other nations. In sport, we already see state-run athletic programs in China and other nations of communist regimes that select their elite athletes at very young ages if they have ideal body types for a particular sport. These children are then separated from their families where they are cut off from the world outside of sport. Coaches govern their entire lives such that they are not allowed to pursue outside interests as all of their time is devoted to intensive training. After their athletic careers are over, many Chinese Olympians are required to remain at the camps to train the next

generation of China's top athletes. Without a ban against gene doping for children and perhaps even despite one, it is not implausible that China and other countries with similar state-run programs would employ these technologies in order to dominate the Olympics and other international sport competitions in the name of national patriotism.

This style of coercive training is comparable to that of excessively ambitious and ruthless parents described earlier. To conclude, we should be concerned with permitting gene doping for youngsters because if overzealous parents or other authority figures are granted access to genetic enhancement procedures they will most likely misuse the technology and use it in ways that further infringe on children's autonomy and their right to an open future. This line of reasoning that I am employing adheres to Murray's (2009) third conceptualization of human nature which I endorse that views human nature as complex, multi-layered, to some extent limited and capable of moral and immoral consequences. Acknowledging our potential to do both good and evil results in assessing which technologies and interventions should be permitted based on whether they promote ethical actions or at the very least do not encourage or predispose us to perform unethical actions. In the ways explained above, the nature of gene doping makes it exceptionally likely to be used to augment the coercive practices of governments, parents and any one else who is in a position of authority.

Many parents can attest to a feeling that the achievements and failures of their children are reflections of their own parenting abilities and skills (Hirschhorn & Loughhead, 2000). In turn, many parents push their children to succeed so that they can feel better about themselves. If the child fails in an endeavour, the parent might feel like they have also failed as a parent. For this reason and possibly to vicariously achieve their

own dreams, parents might coerce their children into excessive training for a sport. This represents treatment of children solely as means through which they can attain their own personal satisfaction or pride rather than purely as ends in themselves. From a Kantian ethics perspective, coercing a child into early specialization in sport is unethical whether the sole motivation of the parent is to gain financial wealth or to achieve personal satisfaction in light of the child becoming a superstar athlete. Granting certain parents with access to genetic enhancement to be used as they see fit is immensely troubling. This is particularly true in the case of sport where many parents fail to acknowledge and dismiss a child's desire to terminate or diminish their degree of participation. Why bestow these kinds of parents with more ammunition to fuel their coercive parenting style?

While parents should be able to exercise liberty when raising their children, in certain cases, restricting this liberty is not only acceptable but also seems to represent a social responsibility. This is the principle that underlies the variety of child protection laws in Canada and the U.S. that aim to ensure that children are nurtured in a healthy and abuse-free environment. Due to the abovementioned ways children's autonomy is potentially threatened by gene doping, this legal framework would likely advocate a ban against it in the context of youth athletics. Now that we have refuted the desirability of genetically designing child athletes based on coercion and autonomy, we will need to shift our attention to further assess the degree that autonomy is at risk if gene doping is used by informed and rational adult athletes. This appears to be a form of gene doping that would be more easily accepted by society but let us refrain from prematurely drawing any decisive conclusions.

The Case Against Perfection

Michael Sandel (2007) stresses the unease or resistive sentiments that many people feel towards human cloning or other types of biotechnology including genetic engineering where a child's characteristics can be selected by his or her parents. In his book, *The Case Against Perfection: Ethics in the Age of Genetic Engineering*, Sandel takes on the arduous task of attempting to articulate why we are often troubled by the thought of genetic engineering for enhancement of our capacities and traits such as athleticism. This permits us to discern whether these apprehensions are justified. Sandel begins by addressing the argument I have supported above against these technological applications that stipulates that the autonomy of genetically altered children is violated. Inherent in this argument is a suspicion that the changes made to these "designer babies" channel them into particular directions in life versus other pathways and therefore interfere with their right to an open future.

Sandel contests this view by pointing out two major problems with it. The first is based on the realization that in the event that we are left genetically unaltered, as is presently the case, our life decisions are still subject to biases due to our "natural" genetic endowments. For example, a boy who is born with a tremendous propensity and ability to work with his hands might feel compelled to take up work in an area that capitalizes on this strength such as carpentry or dental surgery. I do not find this to weigh heavily on the argument I advocated above because I find there to be a difference between our strengths and weaknesses being dictated by nature and by some other person such as a parent. As explained earlier, a parent's decision to genetically enhance a child's athleticism can be attached to coercive intentions and motivations that not only would be accompanied by

insisting that the child pursues elite levels of the sport but also that he or she succeeds and excels in it. If genetically enhanced children fail to live up to their parents' expectations, this can only lead to self-directed blame and guilt in children since there are technically no physiological barriers preventing their success. In this way, the notion of "wasted talents" takes on a whole new meaning.

The second issue that Sandel takes up with respect to our fear of genetic engineering and other biotechnologies related to violations of autonomy is the fact that many people still would be concerned with adults employing these gene-altering technologies on themselves. Although it might be true that the disquiet we feel regarding the prospect of these technologies is less if we consider circumstances where only adults are able to employ them on their own somatic (non-hereditary) cells, our uneasiness does not vanish altogether. Sandel claims that what follows logically from this premise points to the fact that infringements on autonomy cannot fully explain the unrest we feel towards the potential advent of genetically engineering humans for performance-enhancement in sport or other purposes. Sandel (2007) claims that the trepidation with which we feel we should approach these human practices stems from sources that are deeper than notions of fairness, autonomy and human rights, which I still believe are clearly at play in this issue. In contrast to Sandel, I contend that even in adult use of gene doping, autonomy can be restrained as some competitors might feel coerced to engage in potentially dangerous practices just to remain competitive.

However, there are certainly weaknesses in this argument that proscribe us from claiming that it represents sufficient grounds for a ban on gene doping. For one, an abundance of cases currently exist where pressure to succeed by using potentially

harmful means does not evoke feelings that we need to instate general prohibitions on these practices. Consider how cosmetic surgery for aesthetic reasons is legal for adults. There is no doubt that physical appearance plays a significant role in the likelihood of one's success in many areas of work including modeling, acting and musical careers. In addition, employers within other lines of work such as sales value external appearance although less obviously. So when some individuals take up these procedures to enhance their appearance, this could result in a coercive environment that pressures others to do the same in order to remain competitive in their fields or industries. However, although cosmetic surgery is tied to health risks, it remains an option that is open to competent rational adults. Furthermore, at least to my knowledge, there is not a huge demand to remove it from the range of practices available to adults. Thus, I believe that this example supports Sandel's claim that infringements on autonomy cannot fully explain the unrest the public feels towards the potential advent of genetically engineering humans for performance-enhancement in sport.

Sandel also alleges that the unprecedented rate at which science and technology is advancing exceeds the current progress in our moral understanding. He believes that:

To grapple with the ethics of enhancement, we need to confront questions largely lost from view in the modern world – questions about the moral status of nature, and about the proper stance of human beings toward the given world. Since these questions verge on theology, modern philosophers and political theorists tend to shrink from them. But our new powers of biotechnology make them unavoidable.
(pp. 9-10)

Perhaps this pinpoints the difficulty that faces us in attempting to rationalize our feelings that gene doping is somehow against our better judgment. More plainly, Sandel argues that we must ask certain types of questions to locate the underlying issue present in genetic enhancement. Specifically, such questions might include whether altering our genes through scientific techniques makes us perceive ourselves as less “human.” A response to this question would require inferring which aspects of humanity we feel are threatened by these technologies and what sorts of consequences are yielded by these shifts in our self-understanding. These are the sorts of challenging moral questions I will be exploring in my following subsection on what it means to be human.

Human Value

Does Gene Doping Bolster or Reduce Human Agency?

In the conclusion of Pound’s speech at the Banbury Workshop (as cited in Schneider & Friedmann, 2006), he boldly implies that a risk of dehumanizing sport is associated with gene doping and those who would employ genetic engineering for the sport-specific purpose of performance-enhancement can be charged with perverting the human condition. However, Pound does not corroborate these allegations with any reasoning on the matter in his speech. To support the claim that gene-doping athletes corrupt the human condition, he might have referred to a conceptualization of humanity that would raise objections to genetically tinkering with our athletic capacities. This is precisely what we will be concerned with in the third dimension of this analysis of gene doping that deals with potential consequential changes to the self-understanding of the human race. In this regard, Sandel’s (2007) arguments are highly relevant and provide

valuable insight about the implications of how gene doping might affect humanness for us to consider and analyze.

Sandel (2007) evaluates authorship for our own actions whether they bring us praise or condemnation and control over the way we are as aspects of humanity that might be threatened by genetic enhancement. As he describes, due to technological enhancement procedures, we might feel detached or less inclined to take responsibility for our capacities, skills, actions and achievements. If this is the case, admiration of athletes might also be affected since admiration and responsibility go hand in hand. For example, we are much more impressed by successful business tycoons if they have emerged out of poverty by earning their wealth due to their own ingenuity and choices than if they started out with family money and wealthy parents with connections that advantaged them in ways crucial to their success. Specifically, if genetic enhancement allows an athlete to reach the same level without as much effort, the admiration that we feel towards that same athlete appreciably diminishes and is possibly displaced to the practitioner that performs the procedure or the scientist that devises it. In this sense, what we find troubling about gene doping may be that an aspect of humanity is lost, namely human agency over our own achievements. Such a concept of humanity seems to also conflict with notions of moral responsibility in the sense that it might become less applicable to our actions in such a reduced human agency context.

But Sandel (2007) does not rest any of his arguments against genetic enhancement on human agency being lost or that effort becomes less important for us to excel in our pursuits. I believe that Sandel's choice to steer clear of this conventional argument used to support the ban on gene doping and traditional performance-enhancement practices is a

wise move because one cannot reasonably assert that gene doping will substitute for or even reduce the amount of effort required by athletes if nearly every athlete has access to this technology. As I explained in my critique of Tamburrini's (2007) main argument in favor of gene doping, it is much more likely that genetic enhancement will simply augment the performance level of all users making such practices futile in terms of generating athletic positional advantages when they become routinely practiced. This seems to be the case for genetically enhancing any specific-purpose traits to incur relative competitive advantages in particular endeavours where these measures are prevalently used. It is certainly not the case that after undergoing genetic enhancement, an athlete can simply stop or even reduce the amount of practicing and training or effort exerted during games or contests. If all the other cyclists, runners or swimmers are genetically enhanced, athletes in these sports essentially add genetic enhancement to their repertoires and continue to do whatever they can to continue to improve and preserve their competitiveness.

This is analogous to the job market where each generation seems to require evermore education increasing the average level of education attained. Today, new graduates of undergraduate studies are unable to secure jobs that their parents or grandparents were able to obtain with nothing more than a high school diploma. Moreover, being highly educated is no longer necessarily a dependable path to a highly regarded or sought after job. Just as the cyclists, runners and swimmers described above would undergo genetic enhancement along with doing everything else they can to improve their skills and abilities, young people must still obtain an education while enhancing their resumes with work experience, unique skills and extracurricular as well

as volunteer activities. Would we say that human agency over or effort required in one's future performance in a job is reduced when one obtains a university education?

Similarly, are graduates less deserving of admiration in the workplace or should some of that admiration be displaced to the professors, university presidents, deans and others that helped the students cultivate their skills, abilities and knowledge base? These rhetorical questions are meant to expose the absurdity of claiming that a certain degree of human agency is lost when scientists and genetic therapists tinker with our genotypes if genetic enhancement becomes an integral component to athletics. Perhaps some dissimilarity between education and genetic enhancement can be highlighted that weakens this analogy but even so I do not think that any such critique can convince us that human agency over one's athletic performance is reduced in any way at least in a context of sport where genetic enhancement has become standard.

In fact, Sandel (2007) feels that the major issue with genetic enhancement is that we in turn would have *too much* control over reshaping our nature to serve our desired ends. McNamee (2007) defends his position against transhumanism based on the same belief, namely that it would result in humans having an excessively high degree of control over humanity based on preferences regarding the traits that should be modified. Furthermore, he asserts that these preferences would be inescapably linked to normative judgments. To reiterate, McNamee insists that having the genetic basis of life at our disposal through biotechnology will initiate a new notion of what it means to be human. However, beyond the fact that we would understand the new human nature less than the present one as it would be less familiar perhaps, he fails to explain why we would be worse off in a world with this new kind of human nature. Thus, we must ask why the new

concept of humanity resulting from hyper-control should be viewed as morally suspect or something humanity ought to try and avoid.

What is Wrong with Hyper-control? The Abolishment of Life's Giftedness

Sandel (2007) foresees that this amplified degree of control may very well result in a depreciation of the “gifted character of human powers and achievements” (p. 45). This means that we would fail to appreciate something about humanity that Sandel claims is worth protecting: the fact that our lives are gifts and that all of our strengths and capacities even if we dedicate our lives to training and developing them are never fully ours. In addition, appreciating that life is a gift restricts us from having everything at our disposal to be sculpted and reshaped to suit our own desires and preferences.

Critics might claim that viewing life as a gift requires an assumption that there is a giver which appears to presuppose a belief in God. The gifted quality of life appears to possess a religious connotation but Sandel persuasively argues that it is still seen as significant and meaningful through a secular lens. Sandel's response is based on the idea that the source of “the gift of life” need not be God. This is exemplified through the proverbial descriptions of people's musical, athletic or other kinds of talents as “gifts.” This term is used and understood by non-believers and believers in God alike because while the source of the gift could be God, it could also be conceived to be nature or simply fortune. No matter the source, recognition of the gifted quality of life demands a view of the world and all creatures within it including ourselves as more than just instruments to be exploited for our purposes. For instance, a sense of life's giftedness being lost in the case of adults choosing their own genotypes might lead to the notion that because a person is “self-made,” he or she does not owe anything to any one. A purely

instrumental view of other people and creatures shows disrespect for life in the world in which we dwell.

The gifted character of human life, powers and achievements can also be described from the perspective of parents in the context of embryonic or early genetic enhancement. Currently, parents must accept that their children are born with unpredictable and largely unalterable features. Sandel (2007) asserts that with this comes the recognition that children are not merely “products of our will” or “instruments of our ambition” (p. 45). If parents start engineering their children to enhance their athletic prowess or other traits, Sandel argues that this will change the way parents view their children. A parent who designs his or her own child assumes a different role in the child’s life that predisposes him or her to an attitude that makes unconditional love and acceptance for the child as he or she is outdated or irrelevant. Additionally, in an environment of bioengineering children, parents take on greater responsibility over their children such that they might be blamed and derided for not doing all they can to aid their children’s future success. The failure to see children as gifts disarms parents of humility and promotes an excessive drive for mastery and control. Thus, both parents and children will play different roles in each other’s lives that in turn create a shift in the relationship between children and their parents.

Although Sandel (2007) admits that a certain degree of directing one’s child is an obligation that accompanies parenting, he notes that patterns of “hyper-parenting” in modern society are highly evident and morally problematic. As is evident by my discussion on early specialization and intensive training in the context of autonomy and the child’s right to an open future, I whole-heartedly agree with that statement. Even if it

is potentially harmful or outlawed, the idea that some parents will still use enhancement procedures on their children is not at all far-fetched. A case that has recently captured the headlines highlights this unfortunate fact all too clearly. Child Protective Services removed an eight-year old girl in California from her mother's custody after the mother admitted to injecting her daughter's face with Botox to enhance her appearance for beauty pageants (Stanley, 2011). When the young girl was interviewed along with her mother, she stated that she has gotten accustomed to the pain resulting from the injections and that she did not know why she was having them. But, apparently after being coaxed by her mother during the interview, she claimed that she has wrinkles that she does not think are nice. The U.S. Food and Drug Administration advises against Botox injections for any one under the age of 18 and even then requires a doctor's prescription and supervision under California state law (Stanley, 2011). I believe that Sandel is right to stress that failing to view life as a gift leads to practices such as this which are overly dominating and mastery-oriented. Let us more thoroughly consider the probable consequences of failing to recognize life as a gift.

What is Wrong with the Abolishment of Recognizing Life as a Gift?

Sandel (2007) holds that three main features of human morality are affected by the failure to recognize life as a gift. These features are *humility*, *responsibility* and *solidarity*. Right now, sympathy for others is prevalent in many cases because we know that some of our features are unalterable. We have a greater propensity to feel sorry for others when circumstances they do not choose leads to their suffering. For example, we feel more sympathetic to a person who's entire house and belongings are swallowed up and destroyed by flames if the fire was caused by a forest fire or an airplane crashing into

it than if the person was juggling with flaming batons with no prior practice or training. Sympathy would be diminished by genetically engineering children because the parents could then simply modify undesirable traits that may disadvantage children in their lives and future. Therefore the world would become less sympathetic, hospitable and tolerant of or open to people's weaknesses. In addition, humility or humbling one's self also decreases in adults practicing genetic self-improvement because they would come to feel more power over their own natures and thus less indebted to some other source whether it is nature, fortune or God.

Thus, being granted more control over our genetic traits is accompanied by a corresponding rise in responsibility that we necessarily assume over these features, our actions, achievements and failures (Sandel, 2007). The reduction in the role that we perceive is played by God, nature or luck in this life means that we become much more liable not only for our strengths but also for our weaknesses. For instance, Sandel states that a coach can now legitimately be upset with a basketball player for being out of position but when genetic engineering is made accessible, the player or his or her parents might be blamed for the player's failure to be sufficiently tall or have the leg jumping power to reach a ball early enough to successfully retrieve and make a rebound. If we look around us, people seem to act in ways that display an implicit link between the degree of control or the extent that an individual can change an aspect of themselves or their children and the amount of responsibility or blame that we think we are entitled to attributing to that person. To this effect, teammates in Major League Baseball (MLB) already blame each other for not using amphetamines or other stimulants during games (Sandel, 2007). Furthermore, because a fetus carrying Down syndrome can now be

detected during pregnancy and aborted, parents of babies now born with the condition often face the wrath of judgment and disparagement from others imposing their own normative opinions on what should have been done.

The third feature of humanity that Sandel (2007) claims will be altered by the presence of genetic engineering our traits is solidarity. Because we will have greater control and thus responsibility over our fates, Sandel argues that we will also feel less inclined to act in solidarity with those who are less fortunate than us. To illustrate, he explains how the reason that people feel the need to purchase insurance is the unpredictable nature of our lives. In order to profit, insurance companies depend on people who will never submit a costly claim. Very healthy people continue to insure themselves because of the element of chance that always leaves them vulnerable to a deteriorating state of health. For this reason, the healthy segments of the population end up voluntarily grouping their resources with the comparatively unhealthy people. In this respect, solidarity is promoted not out of obligation to help the less fortunate but to heighten one's own security. In a world where people can genetically enhance themselves such that their risk factors for diseases are greatly minimized, people will feel less vulnerable and in control of their fates. Sandel holds that these groups of healthy individuals will probably opt out of insurance causing premiums to explode for the genetically weak. In my opinion, this example is one of Sandel's weaker ones as motor vehicle or other kinds of accidents and natural disasters would likely still maintain a certain degree of insecurity about one's health and future albeit a lesser amount of uncertainty would resound.

More deeply still, with the option of genetically modifying ourselves, empathy and other moral feelings that are required for solidarity to exist in society will be much more difficult to garner (Sandel, 2007). When we see each other and ourselves as the authors or designers of our own genetic features and traits we will likely feel less compelled to help the least advantaged groups of society. On the other hand, when our natural talents are perceived at least partially to be due to God or nature, there is more of a communitarian sentiment that motivates us to help or minimally sympathize with those who at no fault of their own happen to be granted the “short end of the stick” or “losing deck of cards in the game of life.” This is because people born with advantages typically recognize that they could have just as easily inherited characteristics or underprivileged circumstances that would act as barriers to their success and acquisition of a good life.

The Connection Between Human Nature & Fairness

In Sandel’s (2007) own words,

Here, then, is the connection between solidarity and giftedness: A lively sense of the contingency of our gifts – an awareness that none of us is wholly responsible for his or her success – saves a meritocratic society from sliding into the smug assumption that success is the crown of virtue, that the rich are rich because they are more deserving than the poor. (p. 91)

At first glance, it seems that the value of fairness and our understanding of human nature have very little in common. Nonetheless, herein lies the connection that I find particularly striking between Rawls’s Difference Principle and Sandel’s (2007) argument that gene doping relinquishes our recognition of life as a gift. As Sandel describes, we currently do not view our talents as entirely ours and due to our own doing to be

exploited solely for our whims and desires. Yet, this perception would change if we were all to acquire the ability to alter our innate capacities. If we lose the notion of life as a gift, we will feel less compelled to act in accordance with Rawls's DP that professes that it is only fair to benefit from our own natural talents such as intelligence if the least advantaged of society also benefit in some way as well. After all, if genetic technology is accessible to all persons regardless of socio-economic or other demographic traits besides being below the age of maturity, we will attribute people's genotypic "weaknesses" as features for which they can be rightfully blamed since they have chosen not to ameliorate these shortcomings. In a world where fortune and prosperity are no longer drastically influenced by the genetic lottery due to genetic modification, the urgency to adhere to the DP is extinguished. More broadly, the notion of every person for him or herself is promoted at the expense of solidarity that unites communities.

Furthermore, the notion of empathy allows us to draw a link between fairness and the conception of what it means to be human in terms of what is at danger due to genetic enhancement. Recall from the previous chapter's section on fairness, Rawls's (1958) affirmation that acting fairly by constraining one's actions is a kind of conduct that shows empathy or an individual's acknowledgment of others as persons sharing similar feelings and interests. Similarly, the duty of fair play revolves around the mutual acknowledgment of the aims and interests of others involved in the practice and ultimately displays recognition of other individuals as persons. Based on this reasoning, Rawls asserts that, in general, recognizing *prima facie* duties including fair play as well as accepting principles of justice depicts one's treatment of others as persons with similar interests, capacities and feelings. For example, one might abide by the rules of a game because of recognition

that others want the same thing he or she does, namely that fellow contestants follow the rules.

Thus, a loss of the gifted sense of life might lead to a failure to relate to or feel less empathetic toward others. This would likely lead to a view of others either as impediments or tools we can use for our success which would probably eliminate a great deal of cooperation that is currently in practice. In turn, this could also produce a decline in acts of sympathy, compassion and instances of acting fairly toward others such as our opponents in sport or any other domain. This relies on an assumption, which I do not find contentious, that the manner in which persons treats others often reveals how they view them since the manner in which persons view others affects the way they treat them. So, where genetically engineering our traits is possible it could lead to people perceiving others less so as fellow persons with similar feelings and more so as obstacles that stand in the way of acquiring their own desires. Hence, if I view others in this way and also believe that I am self-made and thus do not owe anything to anyone, I will likely fail to cooperate with others and treat them unfairly.

This treatment and view of persons that is promoted by genetic enhancement is greatly at variance with the central objective of decision-making in pragmatic ethics that Schermer and Keulartz (2003) affirm is the promotion of what leads to peaceful and cooperative living and working together. This objective is valued in pragmatic ethics because these conditions foster productivity in society. To be consistent with the version of pragmatic ethics I am applying, an outcome that conflicts with our harmonious living and working together should alarm us as we consider the implications and social problems associated with the evolution of society with technology.

A Critique of Sandel's Case Against Perfection

Dov Fox (2008) reviews *The Case Against Perfection* (2007) and points out main areas in Sandel's arguments that he believes are worthy of further inspection. First, Fox notes that Sandel clearly advocates the use of technological interventions in therapeutic cases where pain is reduced or a disease or condition is fixed. Thus, all of his concerns with genetic technology are selectively targeted at genetic enhancement uses. For instance, he would not hold the use of genetic therapy to repair the genetic source of a disease to be morally problematic. But Fox highlights several cases such as extreme life extension, aborting fetuses possessing Down Syndrome genes and repairing genes that give rise to healthy yet abnormal traits including cleft palate and extreme shyness on which Sandel leaves the reader unable to predict his stance. Fox holds that Sandel fails to provide us with his thoughts on which if any innovations that would enhance individuals beyond a status of "normal health" should be permitted, let alone a procedural principle that we can follow to make our own evaluations. Fox ends his critique of this aspect of Sandel's book by asserting that this is a point of strength rather than weakness. Because the enhancement technologies with which Sandel is most concerned are not currently available, Fox accepts Sandel's ambiguity in this area because of constraints on making claims that surpass hypotheses. However, one can assume another angle to this critique and infer that the reason that Sandel's position fails to prescribe whether some concrete cases are acceptable or not is that it requires an ability to discern the line between enhancement and therapy but he fails to acknowledge the difficulty in drawing the line between these two concepts and does not explain why enhancement but not therapy

destroys our current self-understanding, solidarity, humility or heightens our perceived responsibility.

Jeungst (2009) and other scholars attempt to articulate a conceptual difference between “treatment” and “enhancement.” I have already briefly outlined literature on this distinction in my justification of a delimitation of my thesis that excludes the strict use of bioethics values from my ethical analysis. However, in an attempt to critique the effects of Sandel’s glossing over this distinction, I will review and assess more extensively Jeungst’s exploration of the line between treatment and enhancement

To reiterate, Jeungst (2009) outlines three main orientations of understanding the distinction between enhancement and therapy that might be used for the purpose of deliberating the acceptability of gene doping. Depending on which of these views Sandel holds, particular practices he deems acceptable through his advocacy of therapeutic uses of biotechnology could be very different and might even include genetic “enhancement” upon further inspection.

Jeungst (2009) begins by exploring the enhancement versus treatment distinction from a biomedical ethics perspective. This theoretical lens defines enhancement as the improvement of functions beyond which is required to maintain or restore good health. The first orientation draws the line in terms of the appropriate scope of medical practice as described by the professional standard of care as alleviating suffering. According to this view, “treatment” would refer to any intervention that falls within the medical profession’s domain whereas enhancement does not. Genetically engineering athletes elevates capacities well above that which is required to assuage suffering. The problem here is that some might argue that the psychological suffering of certain athletes who

otherwise might never be able to attain their dreams of competing at the elite level can be alleviated through genetic enhancement. This argument mirrors the line of reasoning used by those responding to the claim that cosmetic surgery in so far as it is performed for aesthetic as opposed to corrective or restorative reasons is beyond the scope of medicine. It can be argued that cosmetic surgery is within the medical profession's domain because it alleviates psychological suffering associated with one's physical appearance failing to live up to societal standards of attractiveness. So if we are to accept aesthetic cosmetic surgery as a legitimate branch of medicine for this reason, why not accept genetic enhancement as well?

Perhaps one might reject this argument for both these practices by demanding that it is more suitable from a medical perspective to have a psychiatrist treat the underlying psychological issues. Otherwise, where do we draw the line? Is it appropriate for a family doctor to prescribe a makeover to a patient who is dissatisfied with his or her appearance? This seems ridiculous but what difference if any exists between the purpose of a makeover and a cosmetic surgery operation for aesthetic reasons? Physicians certainly can still counsel patients who are suffering from distress and low self-esteem due to their failures to measure up to either aesthetic or athletic standards just not by simply masking their insecurities with technical procedures that use up valuable medical resources. This might explain why health insurance does not cover cosmetic surgery for non-corrective purposes.

On the other hand, Jeungst's (2009) second account of the treatment-enhancement distinction draws upon the level of medical care needed to maintain a "normal" range of opportunities that are available to an individual based on the typical capacities associated

with that individual's demographic. In this regard, augmenting an individual's functional capacities above that person's normal range could be deemed as enhancement and thus medically unnecessary. This can be demonstrated in the case of gene doping that serves athletes with functional capacities that are already in the optimal range.

But what about if we live in a world where genetic enhancement is already widely practiced? Let us assume that we still decide to stick with this rule of thumb to determine which interventions represent forms of therapy versus enhancement. Given that the normal range of capacities for a person's demographic would be subject to elevation, gene doping for some individuals below this new and higher average level of athletic prowess could be considered to be therapy.

Alternatively, the third manner in which Jeungst (2009) considers the delineation of enhancement from treatment describes the former as interventions where no pathologies are present. An objection could be raised against the utility of this as well the two abovementioned approaches to understanding the treatment-enhancement distinction for the purpose of delegating which practices ought to be condoned in sport. Specifically, it can be argued that the necessary goal of medicine is not merely the relief of suffering but is actually the *promotion* of health in which case augmenting an individual's functional capacities above that person's normal range, sports medicine practices and interventions occurring where no pathology is present can all be considered within the scope of medicine and as it follows forms of treatment. On a similar note, gene doping in sport could be depicted as treatment if it is framed as a form of prevention for elite athletes reverting back to the normal range of functional capacities.

I agree with Edwards and McNamee (2006) when they address this objection and dismiss it as too permissive because accepting it would require the re-categorization of many practices as “medical” such as tutors who could serve to enhance the capacity of their pupils to materialize their own desired ends but clearly not to alleviate suffering in a medical sense.

Similarly, Morgan (2009) initially considers Jeungst’s (2009) third understanding of the treatment-enhancement distinction and agrees with the claim made earlier by Jeungst as well as Edwards and McNamee (2006) that such an interpretation of this distinction is undesirable because it would result in too many practices being deemed as forms of treatment. In my introductory chapter, I stated that it appears to make the most sense to categorize the particular practices of sports medicine that fail to aim to alleviate suffering, which in the future could include gene doping, as types of enhancement as opposed to treatment. But does locating the difference between treatment and enhancement even allow us to determine which medical technologies are acceptable in sport?

I believe that appealing to a distinction between acceptable and non-acceptable forms of enhancement is more appropriate than merely claiming that any practice giving rise to enhancement is unacceptable. From this perspective, I think that we can justify accepting genetic engineering of general-purpose traits outside of sport and innovations in sport that highlight rather than obfuscate the essential skills that the game tests as described earlier in my section on fairness. As will be explained in the succeeding paragraph, Brown would be supportive of my views.

Brown (2009) speculates whether the costs of unequal access outweigh the potential benefits that may be associated with enhancement of certain human capacities. On the surface, it seems much easier to justify advancing genetic technology for the purpose of treatment as opposed to enhancement. Brown challenges this assumption when he briefly illuminates how difficult it truly is to establish a basic state of health beyond which efforts to advance one's condition could be deemed as forms of enhancement. He also interjects that, even if we could establish this baseline, there seems to be no convincing argument against working to raise this basic level of health. Secondly, some modern medical practices do not clearly fall into forms of treatment. For example, vaccinations work by enhancing human capacities that serve to *prevent* disease and suffering. This function hugs the line between treatment and enhancement. Moreover, virtually all advancements in equipment or new forms of training or techniques in sport are intended to enhance the performance of athletes. Thus, at least some forms of enhancement must be acceptable in sport. For this reason, a cogent argument for or against a technological innovation in sport must be based on more than a mere treatment-enhancement distinction.

I do not believe that we should avoid speculating on the probable consequences because they merely lead to hypothetical statements concerning how to regulate or approach prospective technologies and apparently Sandel agrees as well. Fox is too hasty to assert that Sandel does not explicate which if any innovations that enhance individuals beyond normal health ought to be accepted or how we can go about determining this. What Fox misses in his assessment of Sandel's arguments is the segment in which Sandel targets sport and distinguishes between acceptable and corruptive technological

implications. Sandel bases the method that he advocates for determining acceptable innovations on how they impact the essential features of the sport in question. This is the same approach that I advocated previously (see p. 144).

While I agree with this technique to identify acceptable forms of enhancement, I believe it can also be supplemented by the already explained distinction between general versus specific-purpose traits. Brown (2009) suggests an alternate to the treatment-enhancement distinction that he claims can shed some light on future applications of genetic technology where benefits might outweigh the costs of unequal access. As explained in my first chapter, Brown recognizes the pursuit of enhancing general-purpose capacities that assist individuals in obtaining primary goods of human life as justified applications of the technology.

Brown (2009) concludes by asserting that the essence of sport is performance enhancement and thereby cautions against discontinuing all struggles to improve the ranges of human capabilities if they adhere to reasonable standards of safety. Brown emphasizes that uncertainty in the future means that there is no clear case for undertaking or evading the pursuit of perfection. He claims that a genetically enhanced future could hold the key to alleviating many current biological and social conditions at least as easily as it could give way to endangering our sense of community due to biotechnological transformations of human nature. Brown recognizes that it is impossible to know exactly which abilities and traits will be beneficial to our descendants and what risks of harm they may involve but he refuses to let our uncertainties and fears paralyze us from attempting to better our selves and our children. With that said however, unlike Murray (2009), Brown urges us to try and avoid both somatic and germ-line forms of genetic

enhancement in sport. His warning against both types of genetic enhancement is based on the previously described future futility in enhancing narrowly defined or “specific-purpose” traits. His specific case against enhancing germ-line features is based on the high risk of harm that is potentially linked to genetic technologies for athletic purposes due to our meddling with the future of our children and possibly the future of their successors despite the fact that we are not omniscient beings.

Brown (2009) foresees new ranges of talent and capacities amongst athletes and in turn a need to adapt sports such that they sufficiently challenge the capacities of participants. He also predicts changes in our admiration of the feats of athletes. Despite these changes that Brown predicts, he maintains that sport will continue to preserve its ability to showcase the best aspects of our developing natures and might even demonstrate better occasions of competition due to more fairly distributed talents and capacities relative to the current genetic lottery. Thus, just like Murray (2009), he optimistically anticipates the future of sport.

Specifically, Murray (2009) signifies sport as an ideal avenue through which humanness can be publicly expressed. In particular, athletes can strive for peak performances that demonstrate their own upper human limits in terms of moral virtues such as dedication and cooperation as well as their natural physical capacities that are sharpened through training and practice.

Enhanced & Un-enhanced Human Beings Living Together

My pragmatic theoretical approach focuses on the implications of the public perceiving gene-doping athletes as less human whether or not gene-doping athletes are actually less human than their un-enhanced counterparts. Similarly, it is important to

question whether genetically enhanced humans will view themselves as superior in relation to the un-enhanced population of humans or vice versa. As has been argued, the products of genetic enhancement might be so different than the current human race that they appear to comprise an entirely new subspecies of human beings. It is feared that this will create conditions that make un-enhanced persons vulnerable to domination and oppression by the “superhumans” initiated by gene doping. While perceived supremacy is undoubtedly worrisome, there are ways that we can deter the disastrous outcomes that can result from such perceptions initiated by genetic engineering.

Thus, I do not agree that the subspecies argument successfully dissuades us against genetic enhancement. There is and always will be a wide array of characteristics based on which humans categorize themselves including ethnicity, race, geographical region, nationality, levels of fitness, profession and phenotypic traits that are influenced by one’s genotype. The chance always exists that one or a combination of these characteristics can be used as a basis for promoting the supremacy of one group and consequently the inferiority of others. In fact, events in history can serve as testaments to the fact that the human mind can be infiltrated by the belief that we are better or worse than others because we possess one trait or another. Here, it seems appropriate to point to disgraceful events that stain humanity’s past including but not limited to the advocacy of the Aryan race by the Nazi political regime, slavery of persons of African descent, the apartheid regime in South Africa, and racial segregation and discriminatory laws in the United States. These examples originating from perceptions of supremacy are not confined to our past; genocides and oppression of ethnic groups as well as the failure to

recognize females as persons who deserve full rights still exist in modernity in certain places around the world.

Nevertheless, laws and institutions that do not require sameness in people's abilities and characteristics have been developed in order to negate these morally abhorrent inclinations of certain groups oppressing others (Bostrom, 2003). Modern society consists of people possessing a wide range of physical and cognitive capacities and individuals on the higher end of the spectrum of abilities are able to live harmoniously with those on the lower end. Merely because the upper-end of this spectrum will be higher due to genetic enhancement does not imply a greater likelihood that one group will be made submissive to persons with highly enhanced capacities. Regardless of the presence of genetic enhancement, it is the mentality that is cultivated within society regarding the perceived superiority of one group of persons that determines whether that group will decide to suppress others. For the same reason that a certain region in the world should not aim to obstruct immigration of individuals belonging to certain ethnic groups because they are perceived as drastically different than the current locals on the premise that this could spur clashes with the native population, we should not aim to preclude the development or enhancement of traits. It is certainly a possibility that one group will unite with one another and enslave or attempt to suppress the other based on their differences but we should focus on bolstering understanding and knowledge among each other instead of striving for conformity and homogeny.

Of course, less extreme social issues than genocide or slavery such as stigmatization might emerge from genetically enhanced persons in sport or other domains. To prevent these concerns from materializing, Bostrom (2003) suggests

preventative measures such as nurturing a more tolerant and accepting society and strengthening institutions at international levels that aim to protect human rights instead of an outright prohibition against genetic enhancement. Furthermore, Bostrom briefly describes avenues through which the abovementioned institutions can be fortified, namely enforcing solid democratic constitutions and international laws.

Thus, principles of justice can be maintained since, as is presently the case, they assist cooperation so that we can live with one another. Society has been characterized by Rawls (as cited in Lindsay, 2005) as being founded on a condition of moderate scarcity in that we need to work with others in order to maximally benefit from resources. According to Lindsay (2005), enforcing principles of justice is necessary because people do not always act in accordance to fairness or pass up goods to those who are more deserving than themselves. On the other hand, the fact that justice is an effective tool used by society reveals that most people feel at least some empathy.

To conclude, while I cannot emphatically deny the possibility that genetically enhanced “superhuman” athletes will collude with one another and suppress un-enhanced persons or that stigmatization of enhanced or un-enhanced persons might occur, these risks are unsatisfactory reasons for banning genetic means of performance-enhancement. My rationale is that uniform and virtually identical human populations are obviously not necessary for harmonious societies in contrast to tolerance, empathy and acceptance. I would like to reiterate the notion that empathy – the force that ultimately compels us to promote acts of fairness and justice – is diminished in a world where biotechnology is at every one’s disposal to ameliorate strengths and repair our perceived weaknesses. Perhaps this genetically enhanced society of the future will decide that principles of

fairness and justice are no longer applicable to humanity in terms of our conduct and behaviour with one another. I believe this contributes to an explanation of my interpretation of Sandel's (2007) warning that I quoted at the start of my subsection that connects fairness to our understanding of human nature. As I conclude this chapter, it seems appropriate to recount this passage in which Sandel states that,

an awareness that none of us is wholly responsibly for his or her success – saves a meritocratic society from sliding into the smug assumption that success is the crown of virtue, that the rich are rich because they are more deserving than the poor. (p. 91)

Chapter Five

Summary, Discussion and Conclusion

Does Widespread Use of Gene Doping Promote the Desirable Community?

The utility of a particular course of action – one of the most important features that define pragmatic ethics – is assessed on the grounds that that particular action is useful in promoting a desirable community. The kind of community I first proposed would be most useful, when considering the ethical issues that may ensue with the prospect of gene doping athletes in sport, is one that upholds the value of fairness, autonomy and the concept of what it means to be human. As promised in my introductory chapter, the possible consequences of gene doping and transhuman athletes in sport will be assessed by cogitating whether each consequence promotes, conflicts or is congruent with one or more of the three values in order to deduce what this implies for the permissibility or desirability of gene doping in sport. If we have rightly predicted the consequences that would arise with widespread use of gene doping, the use of genetic technology by athletes conflicts with each of the three values I have identified as lying at the heart of the issue through my review of literature. The position that logically follows this pragmatic ethical analysis is one which strongly opposes the introduction and use of gene doping technologies in sport. A critique of the usefulness of each value for the purpose of investigating the ethical permissibility of gene doping will be included in this chapter. I will proceed with a summary of the chief consequences that my analytical evaluations have established will be most likely to arise if gene doping were to be integrated into the world of sport as a form of performance-enhancement. These effects will once again be categorized by their relevance to one of the three values.

Fairness

I introduced my analysis of predicted consequences by adducing that the argument that gene doping will improve fairness in sport by leveling out discrepancies in genetic athleticism between potential athletes is untenable. I subsequently oriented my analysis on the incompatibility between Rawls's account of fairness and the effects of gene doping. To reiterate, I cede that being a new technology gene doping will be expensive at first and therefore only available to wealthy individuals. However, this period of drastic inequality in access to genetic technologies might be relatively ephemeral as this innovation becomes increasingly affordable. Regardless, although those below the poverty line will probably never enjoy access to these procedures even well after they are introduced into society, refusing the advent of genetic technology based on this idea seems hypocritical since this is the case for all luxuries in life. Nonetheless, perhaps I was too quick to grant the acceptability of this as reasoning to dismiss the claim that the initial exclusivity of this technology based on wealth is unfair making the integration of gene doping in sport objectionable. Let me be clear. I agree that it is extremely unfair that persons are born into abysmal poverty-stricken circumstances such that they cannot even afford the basic necessities of life. But their plight does not justify halting all advancements in science and technology or emerging products into society that exclusively improve the situation of those who can purchase them because they widen gaps across living conditions.

The atrocious living conditions that currently exist in the world reinforce allocating more research and resources into efforts to alleviate social problems such as poverty, hunger, disease and pollution to improve the lives of poor segments of the population.

However, this does not imply that the rest of society should circumvent benefiting from improvements in technology. In support of this notion, if genetic enhancement were to be practiced, it would not necessarily consume valuable resources that could improve these social problems as its inception would be derived from the development of genetic therapy that would hopefully improve global health.

Let us not kid ourselves that international or national forces will provide complimentary genetic enhancement procedures for those who cannot afford them when we cannot even guarantee that every person in the world has adequate food, shelter and water. Providing poor people with gratuitous genetic enhancement when they cannot afford life's basic necessities is almost as ludicrous as giving every homeless woman a non-refundable or sellable pair of Louis Vuitton shoes and each homeless man a Rolex. It is possible that my pessimism on the prospect of universally accessible genetic enhancement is due to the present appalling conditions that might be obliterated by the time that gene doping is realized. Yet to aver that the aforementioned social problems will be archaic at the time of gene doping seems to converge on unrealistic utopianism. Conversely, I find it more reasonable to expect that genetic enhancement would be available only to persons who can pay for it on their own or countries that will provide the technology to a select few.

Moreover, a slightly different issue can be used to help elucidate why the onerous conditions in which some people live do not imply that the rest of society should not be allowed to benefit from technological improvements. In this example, a person has two sons – the first is born with intellectual and physical challenges while the second inherits optimal traits in all respects that would open countless opportunities for his future.

Should the parent discourage or obstruct the younger boy from enjoying opportunities that would cultivate his skills and talents simply because this would widen the gap between the boys' quality of life as the elder son could not gain from these opportunities as well? I believe not as this would involve exorbitant amounts of undue constraint that would be unfair to the younger son. I believe that although this is a less than perfect analogy it highlights the undesirability of demanding that if one group or person in the world faces harsh realities, that we must all suffer or renounce enjoying life's rewards or opportunities. This explains my reasoning that we cannot prohibit gene doping on the premise that some people in the world will not have the chance to relish in its benefits.

Still, I have assented to the notion that gene doping would reduce fairness even if it were to be legalized in sport. By definition, gene doping refers to applications of genetic enhancement procedures that specifically target traits that give rise to athletic advantages useful for performance in a particular sport or sports in general. This represents a reduction in fairness in sport because it interferes with sport's structural goal of comparing competitors based on their performance of relevant skills deriving from both cultivated and natural traits under the auspices of the rules. Technology corrupts a sport if it lessens the degree to which those skills serve as deciding factors in the outcome of the game and improves a sport if it causes those skills to become more pronounced and decisive of contest outcomes.

Recall that unlike gene doping, the introduction of the shoe improved races because they reduced the chances that other factors that are not meant to play a role in determining the winner could prevent the actual best runner in the race from winning. In contrast, more clearly than the use of anxiety-reducing drugs in sport competitions for

example, genetically enhancing certain traits such as explosive speed in sprint running shifts the basis for comparing athletes from the relevant skills derived from cultivated and innate traits to the degree that those skills have been most effectively genetically modified. Thus, this type of enhancement is guilty of meddling with human qualities that are supposed to be at the heart of athletic tests or the relevant skills that the game in question intends to test in order to differentiate the performances of competitors. Athletes enter the sporting arena with an expectation and agreement to the set of central skills and traits that are supposed to determine the winners. If athletes use technology to manipulate these factors in drastic and radical ways, as would be the case with gene doping, they treat their competitors unfairly by prevaricating from practices characterized as fair play.

A necessary step prior to asserting that gene doping treats competitors unfairly in the way I reiterated above is a defense of the goal of sport from allegations that it is inherently unfair. Rawls's Difference Principle (DP) holds that inequalities are acceptable if they are to the betterment of members of society that are the least advantaged. In my previous chapter, I highlighted one realistic way that allowing individuals to display their athletic talents and cultivated skills on the basis of which they are rewarded benefits members of society who are the most disadvantaged. Specifically, I argue that outstanding athletes might inspire others in society including the least advantaged youth who look up to athletes. This could very well motivate ambition, a drive for excellence in all domains including the workplace and good work ethic creating a more productive society overall. This undoubtedly is beneficial to the least advantaged people in the community. For example, government employees responsible for formulating and

implementing policies could be motivated to use their creativity to engineer clever and effective methods of addressing social problems such as poverty.

In addition, I believe that one more approach to considering how fairness is implicated by gene doping is useful. First, a failure to prohibit the use of performance-enhancing drugs or gene doping is irrational as judged from behind Rawls's veil of ignorance because they impose a significant risk of serious health complications to all users but in the absence of a ban, nearly everyone would likely use them thereby canceling out any positional advantages gained by most athletes. For this reason, a rational and impartial person would judge performance-enhancing drugs or gene doping as unacceptable universal practices. In other words, one would not support everyone (gene) doping. The only way one can justify the risks involved in genetic enhancement would be if one knows that they would be offset by its benefits. Thus, athletes who choose to use these modes of enhancement exempt themselves and treat their competitors unfairly.

Autonomy

Given that the technology behind gene doping will likely hatch out of gene therapy, which is still in the developmental phase of research, I acknowledge that we are restricted from forecasting the future safety level associated with these practices with a great deal of certainty. For this reason, we cannot rule out the possibility of a future in which such procedures can be safely administered with no serious side effects. If gene doping were reasonably safe at the time it is introduced to society, this would put to rest accusations that gene doping would necessarily hamper the health of individuals undergoing the procedures or that of their offspring in the case of germ-line

enhancement. Thus, in the future, effects of gene doping might not undermine autonomy by limiting the future choices of persons due to endangerments to their health.

Yet, due to insufficient scientific evidence available at present coupled with the likely fixed nature and far-reaching consequences, I argue that we must approach this application of genetic technology with a great deal of caution. So, while it may be an imperfect solution, the presence of a ban against gene doping for the time being seems defensible from the perspective of autonomy and non-maleficence. In my assessment of the potential consequences of gene doping on children's right to an open future, the similarity between genetically engineering athletes and early selection or sport specialization that occurs in elite youth athletics highlighted the potential harmful effects and uses that this technology has the propensity to promote. It is likely that effects due to changes made by our parents, whether during embryonic or early childhood development, cannot be altered to a significant degree by genetic modification.

I believe that enhancement of general-purpose capacities such as intelligence, memory or health that assist individuals in obtaining primary goods of human life do not appear to impede autonomy. However, a specific-purpose form of enhancement is intrinsically linked to a clear and distinct goal such as pre-programming a child to excel in sport which clearly threatens a child's right to an open future. Thus, based on autonomy, the application and motivations behind genetic enhancement can be deeply troubling. We should be concerned with permitting gene doping for youngsters because if overzealous parents or other authority figures are granted access to genetic enhancement procedures they will most likely misuse the technology and use it in ways that infringe on children's autonomy and their right to an open future. The nature of gene doping makes it

exceptionally likely to be used to augment the coercive practices of governments, parents and any one else who is in a position of authority.

Therefore, I agree that for vulnerable populations such as young children, a paternalistic ban on gene doping is warranted. This is based on the fact that relative to most adults, children are less able to rationally weigh their options when it comes to decision-making. Also, hyper-parenting is a definite threat on children's right to an open future which is reason enough to exclude enhancement of specific-purpose traits from an ethical perspective. Thus, my refutation of the desirability of gene doping in the context of youth athletes is strongly supported by the high risk of infringing on the right of children to an open future.

Concerning adult use of gene doping, I have assessed the argument that once athletes begin to utilize genetic enhancement techniques, those who subsequently follow the lead of these initial users will likely be giving into the pressure to genetically dope in order to remain competitive in a genetically enhanced world of elite sport. This can be viewed as reducing autonomy overall. This coercive environment could lead to serious negative consequences for the collective and long-term interests of athletes due to the potentially high risks of harm cited above.

While we accept many instances in society where rational and informed adults are free to engage in dangerous practices, in some cases such as with intoxicated drivers, it is permissible to impede the autonomy of persons. I believe that the ban against gene doping can be at least partially justified on the fact that it is harmful to the user but more importantly to others who are coerced to also engage in gene doping to remain competitive.

While the protection of others is a noble purpose, as pointed out in my previous chapter, significant limitations exist regarding the forcefulness of this argument against gene doping. For one, all other competitive environments can be construed as coercing individuals from freely choosing their actions. A mere drive to succeed in one's profession or an activity, whether it is in athletics, business or any other area, does not remove the choice of which measures to employ to ensure one's success from each individual. Also, an athlete can always withdraw from participating entirely. With that said, it seems that the most fair situation in sport is one in which no athlete is allowed to create conditions that pressure competitors to use gene doping technology if it is linked to potential health risks.

Human Value

When it comes to effects on our self-understanding as humans, genetic enhancement technologies will amplify the actual and perceived degree of control that we possess over our own nature. It seems quite likely that this will result in a depreciation of the gifted quality of human powers and achievements. This means that with gene doping, we will fail to appreciate as we do now that our lives are gifts and that all of our strengths and capacities even if we dedicate our lives to training and developing them are never fully ours. The worrisome consequence of this is virtually no restraint in sculpting and reshaping ourselves and our children, if genetic enhancement of children is an accepted practice, to suit our own desires and preferences. If parents are able to genetically enhance or design their children, this will likely interfere with the unconditional love and acceptance that they feel towards their children, radically alter the relationship between

parents and their children, heighten parental responsibility and promote an excessive drive for mastery and control.

Also, failure to recognize life as a gift will likely yield changes to our *humility*, *responsibility* and *solidarity*. Sympathy would be diminished by genetically engineering children because parents could then simply modify undesirable traits that may disadvantage children in their lives and future. The world would become less sympathetic and hospitable to people's weaknesses. Being granted more control over our genetic traits would be accompanied by a feeling that we are much more powerful over our own natures and thus less indebted to some other source whether it is nature, fortune or God. This corresponds to a reduction in feelings of humility and a rise in responsibility that we necessarily assume over these features, our actions, achievements and failures. The proportional reduction in the role that we perceive is played by God, nature or luck in this life means that we become much more liable not only for our strengths but also for our weaknesses. By appealing to real-life examples, I argued earlier that we typically act in ways that corresponds to a perceived link between the degree of control or the extent that an individual can change an aspect of themselves or their children and the amount of responsibility or blame that we think we are entitled to attribute to that person. When we have access to genetic technologies, we will likely situate greater blame and impose our judgment or normative opinions on others' decisions regarding genetic enhancement of themselves or their children.

Also, knowing that we have greater control and thus responsibility over our fates, we will also likely feel less inclined to act in solidarity with those who are less fortunate than us. In this context of heightened mastery and hyper-control, empathy and other

moral feelings that are required for solidarity to exist in society will be much more difficult to garner. When we see each other and ourselves as the authors or designers of our own genetic features and traits we will likely feel less compelled to help the least advantaged groups of society. On the other hand, when our natural talents are perceived at least partially to be due to God or nature, there is more of a communitarian sentiment that motivates us to help or minimally sympathize with those who are haplessly underprivileged. Recognizing and appreciating one's fortunate circumstances due to God, luck or chance compels us to act in accordance with Rawls's DP that professes that it is only fair to benefit from our own natural talents such as intelligence if the least advantaged of society also benefit in some way as well. Otherwise, we will likely blame people for their genetic "weaknesses" in their choice not to ameliorate these shortcomings. To conclude, the notion of every person for him or herself is promoted at the expense of solidarity that unites communities.

As I concluded the section of my thesis that maps out potential changes in human nature, I explained that the chance always exists that one or a combination of these characteristics can be used as a basis for promoting the supremacy of one group and inferiority of others. Merely because the upper-end of physical and cognitive capacities will be higher in society due to genetic enhancement does not imply a greater likelihood that one group will be made submissive to persons with highly enhanced capacities. Perceptions of supremacy can always give way to acts of violence and oppression but all this calls for are laws and institutions that do not require sameness in people's abilities and characteristics. Regardless of the presence of genetic enhancement, it is the mentality that is cultivated within society regarding the perceived superiority of one group of

persons that determines whether that group will decide to suppress others. Even though some people in the world today still strongly perceive homosexuality as deviating from what is normal, natural or right, we recognize that the way to prevent homosexuals from being subjugated or harmed is to foster tolerance rather than try to suppress people's homosexuality. Similarly, prodigies in athletics, just as in science, art or any other social practice should not be seen as outcasts merely because they are anomalies with extraordinary capacities. Thus, we ought to focus on strengthening understanding among each other instead of striving for conformity and homogeneity. This, along with other measures such as strengthening institutions that protect human rights can prevent stigmatization or other concerns associated with genetically enhanced persons in sport or other domains. This suggests that preventing large differences between enhanced and un-enhanced humans is an unsustainable reason to ban gene doping.

Assessment of the Utility of Each Value For Our Purposes

In my introductory chapter, I projected that one of the most challenging aspects of the pragmatic method I chose would be to compromise and find an adequate balance and prioritization among competing values. Because one of the main pragmatist commitments holds that ethical values and principles do not have absolute status, when confronted with dilemmas involving competing values, one should be able to justify the prioritization of one value over the other. Thus, I will now use the likely consequences of transhumanism and gene doping in sport as a reference as I critique each of the moral values that I have elected in terms of three specific issue-related criteria, namely scope, relevance and relative strength as compared to competing moral values. This will allow me to comment on the usefulness of this particular list of values in examining gene doping and

transhumanism in sport. I will also provide a comparison of each of these values with one another based on the abovementioned criteria. This can be used to inform future pragmatic ethical inquiries on gene doping or related technologies.

Despite the fact that Brendel and Miller (2008) designate these three criteria as encompassing a suitable checklist for assessing the utility of values in pragmatic policy inquiries or research ethics, they fail to explain their precise meaning in this specific context. Therefore, I need to clarify my interpretation of each of these criteria prior to outlining how I believe each value generally scores on these factors for my research questions. By scope, I will refer to how far-reaching the consequences are with which the value in question is concerned in terms of groups that are affected. For instance, are consequences restricted to youth, adults or the entire sports community? Are only certain athletes affected or is the entire institution of sport affected? And for that matter, are effects troubling for people outside the sports community? In contrast, the apparent relevance to the issue will portray how effective the value is at capturing the most troubling aspects or repercussions associated with the issue of gene doping. The final criterion, namely relative strength is perhaps the most axiomatic in meaning and will denote the forcefulness with which the value seems to agree or dissent to the practice of gene doping in sport.

As has been shown, the relative strength or forcefulness of the human nature value seems to be very strong and perhaps can be signified as the strongest of the three chosen values on our list. In capturing the seemingly most troubling aspects or moral repercussions associated with the issue of gene doping, it seems to tie together the other relevant values by locating a deep source of how gene doping can result in both

reductions in autonomy and fairness. To reiterate, the lost sense of the gifted quality of life leads to a decline in compassionate interpretations of others' differences or weaknesses. Recall that this new outlook recruited by genetic enhancement described by a loss of empathy would most probably lead to a view of others either as impediments or tools we can use for our success and not as agents with feelings and inclinations that are similar to our own whose autonomy is to be respected. This would probably eliminate a great deal of cooperation that is currently in practice. In turn, this could also produce a decline in acts of sympathy, compassion and instances of acting fairly toward others such as our opponents in sport or any other domain.

Thus, in addition to mapping out a likely root of the adverse effects on fairness and autonomy that are associated with gene doping, the perception of changes to human nature is also interconnected with values that are symbolized as closest to the heart of pragmatic ethics, particularly those that promote cooperative and harmonious living in society as technology progresses in its evolution. In the abovementioned ways, the conception of what it means to be human is clearly of high relevance to the issue of gene doping.

Not only is the relative strength and relevance of the human value prominent, it is also very broad in its scope. The effects that fall under the umbrella of what is wrong with gene doping based on a sketch of human nature surpass athletes and the sports community. Certainly, losing the compulsion to adhere to fair play will destroy sport's contests but these consequences would also impact the entire human race as gene doping would influence how we view each other and interact. For instance, effects on the relationships between parents and their children and the way in which we view and treat

fellow members of society such as reductions in acts of sympathy and blaming people for their weaknesses could all resound in a genetically enhanced future. As I explained earlier, it is fair to foresee how empathy's reductions could lead to debunking the rationale behind why we agree with principles of justice and fairness to structure our societal institutions. Thus, in comparing the three values, the concept of what it means to be human seems to be the deepest factor explaining why we feel that these practices are unsettling.

Moving on with the critical assessment between competing values, the value of autonomy appears to be the least strong but still relevant to the issue of gene doping in sport although perhaps with a narrower scope than the other two values. The reason I have evaluated it as a weaker value is because, we must balance autonomy with other values insofar as we would like to protect the structure of sport and participants. The force of the value of autonomy is strong in the case against genetically enhancing children below the age of maturity because of the nature of the technology giving rise to susceptibility of their right to an open future being interfered with by authority or governmental figures. The value of autonomy is relatively weaker in precluding adults from choosing to practice gene doping if they are rational and informed of the accompanying risks. Protecting the environment of sport for competitors who want to remain competitive but do not want to engage in potentially dangerous practices is a relatively strong reason to prohibit gene doping if it is in fact proven to be a dangerous practice. However, even then, autonomy of the other competitors is paternalistically restrained by the ban against gene doping for protection of the collective health interests of all athletes. Either with a ban or against it, the autonomy of some group of athletes is

limited. Thus, there are clearly some major limitations that weaken autonomy's force on this issue if we are going to depend on it as a basis for or against a ban on gene doping.

Moreover, in terms of scope and relevance to the issue of gene doping, discourse in health care that I highlighted while reaching an interpretation of autonomy with which I could be satisfied reminds us that particularly when it comes to autonomy the cultural relativity of ethics can reduce the significance placed on particular values in a multicultural society where Western ethical principles preside. For instance, some cultures have no desire to uphold the value of autonomy and so they would view potential reductions in autonomy as not morally disturbing consequences associated with gene doping. Because I am trying to uphold a contextual feature of pragmatic thought, how does this translate into a universal ban against gene doping based on autonomy? Obviously, permitting nations to delegate whether they accept the use of gene doping by athletes or not is an unfeasible solution as this would drastically impact fairness in international sports competitions. This displays a prioritization of the value of fairness and the protection of sport and its participants over the value of autonomy that I believe is warranted. An alternative to a universal ban would require a conditional acceptance of gene doping only for cultures that do not uphold autonomy and this is obviously problematic. We should avoid generalizing people's values based on the groups to which they belong since variation exists within cultural and national boundaries and even within families.

Fairness seems to be closer in relevance and strength on this issue to the concept of what it means to be human than it is to autonomy. As I mentioned in the preceding paragraph, fairness seems to be a justifiable overriding factor for constraining some

aspect of autonomy at least in a ban against gene doping. Seeing as how all athletes are affected by amplified instances of competitors acting unfairly toward them by gene doping, the climate in sport could be enormously affected.

The value of fairness is strengthened by a process advocated by Rawls in which we use a figurative veil of ignorance to describe how a rational and impartial person would judge performance-enhancing drugs or gene doping as unacceptable universal practices. This explains how those who choose to gene dope treat their competitors unfairly since they confine permissibility to themselves. The only way they could almost guarantee that they would benefit from gene doping is if not everyone practices it. The high potential of serious health complications associated with gene doping due to its nature and the futility of all users using it point to the fact that a rational person would object to its widespread use. This persuasively explains why fairness strongly conflicts with the use of gene doping by athletes.

An alternative approach also firmly underscores the incompatibility between fairness and gene doping. Athletes enter the sporting arena with an expectation and agreement to the set of central skills and traits that are supposed to determine the winners. But athletes who cloud these factors treat their competitors unfairly by diverging from this structural goal of sport competitions. In terms of the scope of gene doping, fairness seems to primarily affect the entire institution of sport and the community it attracts unlike the value of humanness that blankets consequences across all members of society.

Thus, in a round about way, I have put forth a defense for the hypothetical community that I am endorsing. My preference for a community that upholds my understanding of fairness, autonomy and the concept of what it means to be human has

been justified by ruling out the desirability of living in alternative communities that would fail to respect these values. Unless of course, one does not find the probable consequences that have been outlined in my previous chapter and summarized above as normatively troubling or noxious, basing one's community at least partially on these three values seems to be conducive to living well and harmoniously with one another at least when it comes to the consideration of permitting or banning gene doping in sport.

In my first chapter, I proposed that the utility of this particular list of values would be also tested by evaluating whether they preserve the "goodness" of sport by considering each value separately and envisioning the consequences that would likely occur if sport participants were to violate that value in sport. For example, if fairness was virtually absent from sport, what sorts of consequences would this lead to? The consequences of everyone failing to live up to the ideals of fairness in sport are probably similar to what could be envisioned if honesty was no longer something that athletes cared about. As was described in my introductory chapter, the consequences that would likely be yielded by a total disregard for honesty, and as it follows fairness, include cheating, deceptive rule violations, and if an acceptance of the rules must exist just so the game constituted by those rules can take place would result (Suits, 1978), prevention of any real game from taking place.

Although autonomy of athletes already appears to be improperly guarded in some cases as described in testing measures that fail to protect the privacy and choice of athletes, much more worrying consequences can be associated with completely disregarding this value. If autonomy of athletes were totally disregarded, athletes would be thought of less as persons with rights and more so as replaceable commodities or

actors perpetuating the institution of sport. This could result in less attention to potential harms experienced by athletes in order to enhance the entertainment factor for spectators. For example, autonomy of gladiators who entertained spectators in ancient Roman arenas was clearly limited since these fighters were forced to fight wild animals as well as each other and convicted criminals to the point of death. Similar extreme sports could develop if autonomy of athletes was to be completely disrespected.

As for the third value, namely the concept of what it means to be human, I understand human nature to be complex and capable of moral and immoral consequences. This concept is less attuned to envisioning consequences of disregarding it in sport. Since my approach to evaluating gene doping technology based on this concept stood on whether it would promote ethical actions or would not encourage us to perform more unethical actions, this is not akin to the assessment approach used on fairness and autonomy. A conception of sport that completely allows any change to our perceived human nature that could lead to unethical acts is essentially unlimited and thus need not be hashed out.

Limitations of my Conclusions & Future Areas of Research

As I stated at an earlier stage in my ethical analysis, the values I selected were not chosen until after I had conducted a thorough review of literature on the issue of gene doping but this does not mean that my choice of core values is exclusive and accurate or that no other relevant values are at stake here. As a pragmatic researcher, focusing on discovering absolute truths such as the intrinsic values of sport or the structural goal behind sport interferes with seeking out what is useful for our practices and decisions as it is impossible to know for sure when we have done so. Instead, if it seems reasonable

enough after examining it against all the available evidence, it can be used provided it is useful for inquiry. For example, while I cannot know for certain that the effects of mastery and control over our genetic traits will cause worrisome consequences, I have asserted that these are warranted concerns due to the apparent nature of genetic enhancement that would likely dispose parents to an attitude that discourages accepting children for who they are and disconnecting notions of sharing and solidarity among community members. The fact that I am able to justify my claims on this matter using logic and real-life experiences permits me to employ them in my ethical assessment of gene doping. Similarly, whether or not I have accurately and fully depicted the values that are most susceptible to hindrance or enhancement would not affect my conclusions on gene doping since pragmatic conclusions are context-dependent and hypothetical in nature.

Due to constraints related to my master's program timeline, I have had to place delimitations on my research for the sake of manageability. The upshot of this is that there are various directions in which my research can be extended on gene doping. For example, my ethical inquiry focuses on three values around which gene doping debates center, namely fairness, autonomy and the concept of what it means to be human. This is not an exhaustive list as my ethical analysis could not entail more than what could reasonably be completed in the time allotted for a master's degree. Thus, my ethical analysis could be expanded to include more critical values that are at play within the issue. Conversely, one might choose to explore specific unanswered questions based on one or more of the three values that have become evident as I approach the concluding portion of my thesis. For example, one might choose to explore the line between general-

and specific-purpose traits. More specifically, a problem with exclusively allowing enhancement of general-purpose traits in society is that the line between general- and specific-purpose may turn out to be too difficult to draw. If a specific-purpose trait is one that is intrinsically tied to a clear and distinct goal, how can we know whether the enhancement of one trait that appears to be broad such as memory or intelligence is not intended for specific endeavours? Also, if this is a legitimate concern, how might the use of genetic enhancement be monitored? If genetically enhanced people's lives and day-to-day activities must be overlooked by some ruling body aimed at ensuring that applications of genetic enhancement are ethical and safe, the interference that this would require might seem much too excessive to justify solely permitting genetic enhancement of general-purpose traits. Thus, the practicalities associated with such a policy might consolidate justification of a blanket prohibition against genetic enhancement procedures in society that does not demarcate specific- from general-purpose traits. Further examination of this issue is warranted since this topic seems to diverge from genetic technologies applied for athletic purposes with which my thesis is strictly concerned.

Moreover, the fact that my pragmatic perspective allows me to see that other understandings of fairness, autonomy and perceptions of humanness are possible and could be more useful compels me to admit that Rawls and his ideas for example are not to be regarded as the be-all and end-all of fairness. Philosophers or other types of thinkers may enlighten us in the coming days with their acumen and thoughts on fairness or any of these other values for that matter. Today, the usefulness of principles of justice and fairness advocated by Rawls are clearly relevant for our needs. This is supported by the fact that much of what we do and how we govern societies are guided at least partially

and assisted by these principles. However, it is perfectly plausible that these principles will be supplemented or replaced by others that are more effective or possess less substantial weaknesses or limitations.

For instance, given the implications of gene doping, we might actually have to modify certain currently used principles of justice or more broadly Rawls's concept of fairness as they rely on presumptions that we cannot modify our genetic makeup or innate traits. Specifically, it can be argued that advances in applied genetic knowledge might potentially disturb current ideas of what it takes to legitimately characterize a state of equal opportunities (Arneson, 2002). While we have always had the capacity to influence the traits found in future generations by deliberately choosing mates with traits that we want our children to possess, future genetic technology has the potential to convert the control over the genotypes of children to one of unparalleled degree in human history.

Let us take Rawls's Fair Opportunity Principle (FOP) for example that holds that social structures must be constructed so that stations that provide benefits to the individuals who fill them thereby giving rise to inequalities must be fairly available to all members of society. From this, one can infer the idea that two individuals identical in terms of natural ability and ambition should have more or less equal opportunities. This belief depends on the notion that if someone has the ambition and is willing to work hard enough to achieve some end, they deserve it. More importantly, this belief also requires the idea that innate capacities are non-changeable factors in one's life. Principles of justice and fairness including the FOP were formulated in a context like the present in which genetic features are fixed. We can always try and improve upon our weaknesses but beyond a certain point, we are constrained by the toolbox of abilities and features we

were given at birth. Conversely, where gene doping is possible, people can choose to significantly modify their own genetic makeup or that of their children.

As cited in Arneson (2002), Buchanan describes how genetic intervention used to reduce the incidence of genetic diseases or disorders can be used to “level out the playing field” as advocated by the FOP allowing more people to live longer and healthier lives. This allows us to infer that advocates of the FOP should hold ambition and individual choice at the exclusion of innate capacities as the only factors that should determine success in our pursuits. Clearly, this principle esteems self-chosen circumstances as fair determinants of our place in society. Therefore, provided socio-economic status does not impede one’s access to genetic technology, should we allow persons to choose for themselves whether they would like to genetically enhance certain traits in order to allow them to obtain their desired achievements? And in that case, if we possess the means and resources, is it an obligation to enhance our children’s genotypes to ensure that there are no barriers obstructing their chances of excelling in activities that they want to pursue? Or more forcefully, is it a state obligation to attempt to alleviate people’s genetic weaknesses even if they do not infringe on their state of health just to implement equal starting positions in society so that ambition and perseverance alone can determine where we end up in the social hierarchy?

Before even attempting to reply to these questions, we should inquire whether the privileged status we attribute to ambition and desire is rightly justified. In my introductory chapter, I argued that one premise that the FOP likely stands on is that ambition, work ethic, determination and the like stand alone as factors for which we can validly say that people are accountable because they are not merely imposed on

individuals as are socio-economic status and genetic endowments in the absence of self-chosen genetic modification (Arneson, 2002). According to the FOP, social practices and institutions must step in to ensure that the inequalities emerging from non-chosen origins are compensated for or rectified. The upshot of this is that after creating equal starting conditions, outcomes should be dictated by the consequences of choices made by the individuals themselves. In essence, each individual can then rightly be held responsible for the position they end up in within the social hierarchy.

However, ambition and desire to pursue certain activities are certainly impacted by many factors including but not limited to the geographical and cultural settings in which people spend their lives. Recall the example I provided in my third chapter where in the southern United States, the pursuit of football by adolescent boys but not females is basically a given. It cannot be disputed that this mentality is imposed on young people growing up in these communities which weakens the claim that accountability is legitimately allotted to one's desire to pursue certain activities and the commitment designated to those endeavours. In addition, the time, effort and dedication that people decide to assign to their pursuits can undoubtedly be influenced by whether their aspirations were encouraged and nurtured by their parents or others early on. Socialization's potential to impose a great impact on one's success in particular activities that is comparable in degree to one's socio-economic status and genetic endowments is uncontestable. As I described in my analysis of relational autonomy in an athletic world of gene doping, even the choice to genetically enhance one's self can be subject to socialization.

This is reflective of my perception of human nature and the relational sense of autonomy as outlined in my third chapter. There, I acknowledged that as human beings, it seems warranted to characterize us as largely defined by the relationships we have with other human beings so much so that a great extent of our identity, aspirations and values are products of our relationships and socialization. In the face of the fact that virtually all of our choices appear to be influenced by external sources, we should be careful not to imply that we are in no way responsible for our own actions and choices. After all, human cognition, individual autonomy and agency allow us to rationally engage in coherent decision-making.

However, through the preceding couple of paragraphs, I have intended to point out that the limitations of the FOP contribute to justifying my choice of grounding my arguments pertaining to fairness implications of gene doping in the ideas advocated by Rawls specifically in his DP. This principle allows us to concede that some inequalities in the allocation of primary goods are to be accepted but they must improve the situation of members of society that are the least advantaged. From this perspective, we can evade the challenging and seemingly impossible task of delegating for which, if any, factors people can be held responsible. Or, if it turns out that all factors are to some extent influenced by outside sources, we can also eschew having to rank factors based on the relative degree to which each factor is self-chosen to determine which should weigh more heavily on dictating our positions in the social hierarchy. I find these all to be unnecessary and in the end likely unproductive consumptions of our time, energy and attention. Once again, this seems to reflect Rorty's (1990) idea that "A God's eye-view is one that is irrelevant to our needs and practices" (p. 2).

What if a General-Purpose Trait Clouds an Essential Element of the Sport?

Imagine a particular instance of genetic enhancement that is found to be acceptable on the grounds that it targets a general-purpose trait such as memory but the subject is an athlete and this general-purpose trait ends up aiding him or her by strengthening a capacity that controls a crucial skill required by the sport. For example, memory is considered a general-purpose trait but improving this capacity might strengthen the ability of a quarterback in football to recall plays and strategies when they would be most helpful. It is debatable whether the ability to remember effective strategies and plays is considered an essential component to the game that the sport intends to test.

This example is akin to Tiger Woods and other golfer's use of laser eye surgery to enhance their vision beyond corrective standards which can improve some facet of their game. Similar to memorizing strategies and plays in the above example, the predominance of vision's role in determining the winner in golf is not entirely clear. In a prior chapter, I agreed that in order to determine which essential skills each particular sport holds as most important in determining the outcomes within that sport, it would be helpful to consult the community that surrounds each sport. This community includes all of the athletes, coaches, fans and sporting officials and others who participate in the sport in some capacity. Perhaps the athletes themselves should have the greatest say on this matter however. Additionally, we can certainly expect and accept some variation in the skills that are deemed to be essential to a sport across different levels of competition such as recreational, intermediate or advanced and whether the context is professional or amateur.

The reason I have posited these considerations is to exhibit how careful we ought to be with respect to genetic enhancement that partially passes the acceptability test on the grounds that it improves a general-purpose trait but does not entirely pass because of uncertainty as to whether the enhanced trait clouds an essential skill of the game. Likewise, we must explore how we are to confront cases where individuals have genetically enhanced general-purpose traits, if this is deemed acceptable, that end up clearly interfering with an innate capacity based on which the game intends to compare competitors. Excluding genetically enhanced people from particular sports in these events seems utterly discriminatory and reminiscent of the case introduced in chapter three involving Oscar Pistorius – a runner with two prosthetic lower limbs who successfully challenged the ban enforced by track and field's international governing body that prohibits athletes with carbon-fibre prosthetic legs from competing alongside able-bodied athletes.

The ruling of this case that favoured Pistorius has possibly created precedence for how we are to handle genetically enhanced persons competing in future competitions. The ban against Pistorius and similar competitors were based on allegations that their legs make the biomechanics of their running significantly more economical. The economy of one's running is undeniably a crucial component to success in the sport and that is why there was an effort to disqualify him. However, the evidence against Pistorius was insufficient in proving that he possesses any significant advantage relative to his non-paraplegic competitors. Similarly, if challenged, banning a genetically enhanced athlete from competing against un-enhanced athletes would probably require being able

to convince the courts that a significant advantage emerges from the genetic enhancement with respect to an essential skill of the sport in question.

Limits on Asserting the Ethical Permissibility of a Gene Doping Ban

Through my pragmatic analysis, I have granted ethical permissibility to a position that opposes gene doping in sport since this seems to be more consistent with the desired community. Given my pragmatic approach and due to the fact that I limited my study to three values, this permissibility should be understood as conditional and context dependent.

In contrast, World Anti-Doping Agency (WADA) employs a fixed moral stance against gene doping that assumes that one does not need to consider the manner in which it is performed prior to concluding that it is an unethical practice. Regarding the principles that emerged from the 2002 Banbury Conference, several are incorporated into WADA's policy on gene doping in sport. The most crucial conclusion is the claim that genetic transfer technology for the purpose of performance-enhancement is inconsistent with the spirit of sport and is potentially dangerous for athletes. Based on these reasons, it was decided that prohibiting such practices from sport is a logical categorical sport policy. This is largely at odds with my pragmatic perspective however since a comprehensive understanding of the details behind the prospects of gene doping and whether reasonable safeguards can be placed against adverse effects perhaps associated with enforcing the ban are absolutely crucial to the validity of ethical arguments that support or reject a ban in sport.

The heart of my research on this topic has been concerned with the ethical permissibility of gene doping in sport. Thus, the conclusion that I have deduced, namely

that we have sufficient reason to believe that gene doping will most likely threaten fairness, autonomy and what it means to be human still does not allow me to imply that the ban on gene doping from sport is morally justified. This is because other ethical problems that have been briefly discussed in my introductory chapter may arise due to particular measures that sport-governing bodies will have to employ in order to enforce this anti-gene doping policy. Of course, it might be argued that implementing a ban against gene doping could require superfluous governmental interference into our lives. Such an objection reveals potential dangers associated with failing to consider other values including privacy and liberty that could potentially conflict with the enforcement of this particular prohibition in sport.

To illustrate, consider that the desired community values the autonomy of individuals. If control programs are to be sufficiently effective, they must enforce genetic testing. Of course, consent will be required for such genetic testing. Yet, if an athlete objects to testing, disqualification from competitions will likely take place. Rules and penalties of this nature will likely result in coercion in genetic testing and therefore the ban would fail to uphold the value of autonomy in the community.

Also, given the particular challenges associated with testing individuals who have undergone genetic transfer technology, it is likely that some of these athletes will evade detection. On a practical level, detection of modified DNA would be extremely difficult because it would resemble “normal” DNA. Tagging modified DNA has been suggested as a solution to this problem but of course a black market could emerge offering genetic enhancement procedures using untagged DNA to athletes who wish to avoid the penalties or sanctions associated with gene doping but who still desire the athletic advantages it

yields (Mehlman, 2009). This will lead to an unfair situation for athletes who choose to comply with the bans as they will be competing with a genetic disadvantage relative to the gene doping cheaters.

Thus, Mehlman (2009) describes an alternative detection procedure that could compare the athlete's genome to their genetic profile taken just after birth or even prenatally to prevent parents from employing genetic technology on their children. An appropriate objection to both detection measures is based on privacy given the highly sensitive information that could be deduced from an individual's genome. Genetic testing may threaten the privacy and autonomy of athletes because of the personal information that is made available through the individual's genetic map. Mehlman argues that ensuring confidentiality will prove to be challenging. Indeed, it seems unethical to deny an individual of their own genetic information and thus withhold important implications that that information makes evident if he or she has requested access to that knowledge. The disclosure of this information may also potentially violate the privacy of the athlete's relatives who could potentially share particular alleles or traits such as genetic mutations. This could plausibly lead to genetic discrimination by insurers or employers for instance.

As explained by Mehlman (2009), the only way to effectively enforce a ban against germ-line gene transfer technology is to keep a record of genetic pedigrees which could be used as a baseline for tracking changes over generations. However, this method of putting a ban against germ-line genetic enhancement into effect could lead to false positives since naturally occurring mutations could emerge from one generation to the next which could be wrongly perceived as genetic enhancement. In addition, this detection method would also be linked to the same types of privacy violations and risks

of genetic discrimination as have been outlined for somatic gene transfer detection procedures. What is more, it would be very difficult to justify penalizing individuals for the actions of their predecessors.

The existence of documented information of this nature about individuals or even their relatives is troubling when one considers possible use by health-insurers and employers. Genetic information of individuals has already been used as a source of discrimination in many social institutions such as health and life insurance industries. Therefore, this information decreases fairness if it leads to the denial of services or entitlements to individuals who have a particular condition or genetic predisposition (Billings, Kohn, de Cuevas, Beckwith, Apler, and Natowicz, 1992).

This last point exemplifies how foreseeing the potential consequences on the values of the desired community may contribute to recommendations for the changeable features of detection procedures and control programs such as restricting access of information produced by genetic screening of individuals and for determining whether these program features will sufficiently safeguard against such threats.

Thus, as I explained in my first chapter, it is of equal importance that ethicists determine whether the consequences that can be attributed to the incorporation of genetic testing in sport are useful in promoting or actually conflict with our vision of a desirable community. I have opted to omit this aspect of the gene doping issue from my thesis for the sake of time and manageability. Yet, this can clearly serve as another research question that could also be studied through the pragmatically informed steps I have chosen for my ethical inquiry. If the outcome of such a study of gene doping also finds the enforcement of a ban against gene doping to be problematic with the values of the

desired community, a comparison of that analysis with mine could elicit an assertion of whether an implementation of a ban or an absence of a ban is more problematic with the desired community. The evaluation could be aided by the three criteria I used earlier when judging the utility of each of the three values in this investigation. Only after this process could one be warranted in asserting the ethical permissibility of a ban on doping or lack thereof based on a pragmatic ethical inquiry like mine. However, it is also possible that the prohibition of the ban can be justified on grounds not covered through my framework despite the consequences associated with implementing the ban.

Connections between the Tenets of Freestanding Pragmatism & My Own Analysis

Some critics might object that my section on classical pragmatism is unjustifiably lengthier than my section on freestanding pragmatism considering that the latter is the paradigm chosen for my inquiry. However, I defend the distribution of my second chapter because I believe that a theoretical and conceptual understanding of pragmatism is necessary for an appreciation of the principles upon which my account of freestanding pragmatism stands. Prior to this juncture, my focus has purposefully been targeted more on the use of this method of analysis than providing explanations of it. I believe that seeing the freestanding pragmatic method in practice is a much more effective illustration than even the most in-depth description one could provide. What I concur should now be expanded upon, in retrospect, is how each of the six guiding principles of freestanding pragmatism is implicit in my ethical inquiry.

Let us begin by recounting how contextualism is evident in my analysis. This principle of freestanding pragmatism emphasizes immersing one's self in the factual details of the problem. In this inquiry, a considerable portion of my investigative efforts

is dedicated to understanding fairness, autonomy and what it means to be human in the context of sport and how each of these values relates to the use of genetic technologies for performance-enhancement purposes. I explore special considerations in terms of distinct uses of the technology including both somatic and germ-line types of genetic enhancement, as well as unique implications associated with genetic modification of youth and adults. I also argue that certain implications are more likely tied to genetic enhancement of specific-purpose traits such as “athletic genes” than they are to the use of genetic technology to advance health or other general-purpose traits.

Secondly, instrumentalism plays a crucial role in guiding my analysis. The main objective of my research is to critically investigate the implications that gene doping would likely produce for the three values I have chosen. My conclusions regarding the ethical permissibility of this form of enhancement in sport are based on whether integrating this practice into sport is compatible with the values of my notion of a desirable sport community. For this reason, my research can be viewed as being instrumental in promoting fairness, autonomy and what it means to be human.

My analysis also endorses eclecticism given that the values selected were not chosen until after a thorough review of literature that encompassed all sides of the debate on gene doping. I repeatedly argue for the need to fairly consider alternative viewpoints and for sport-governing bodies to engage the sport community in the decision-making process. In these ways, my research also corresponds with a search for consensus – another one of the six principles that guides freestanding pragmatism.

I apply the principle of theory independence, or an avoidance of breaking the issue down into components in the formulation of a theory, as I do not enter the analytical

process with a conclusion that I set out to prove. In my inquiry, the central theory being tested is that gene doping could potentially conflict with the value of fairness, autonomy and our conception of human nature. As I divulge in my introductory chapter, this neutrality is meant to prevent oversimplification of the complicating ethical issues involved in order to prove a particular theory such as that gene doping is undoubtedly against core societal or sport values.

Similarly, I undertake the process of reflective equilibrium throughout each step of my analysis. For instance, as I specify my understanding of each of the three chosen values, I evaluate my assumptions including whether alternative accounts are less compatible with the tenets of pragmatic ethics. Moreover, when I attempt to predict the most probable consequences that will emerge due to gene doping, my arguments require crucial assumptions that must be made because, at this time, gene doping only represents a theoretical possibility. Additionally, reflective equilibrium takes place at the final phase of my inquiry as, rather than unquestioningly promoting the three values I initially identified as lying at the heart of the issue, I evaluate the relative strength, scope and relevance of each of these values with respect to gene doping.

Consequences of Gene Doping and the Fallibility of Our Predictions

Fox (2008) highlights something that seems rather obvious concerning Sandel's (2007) predictions about the way genetic enhancement will adversely impact humanity's humility, solidarity and appreciation of life's giftedness. Fox claims that genetic enhancement must be highly effective in modifying our traits in order for Sandel's claims of its impacts to actually materialize. If procedures yield minimal or nearly negligent effects on our traits, surely Sandel's fears regarding the consequences of full-fledged

enhancement will likely not be justified. However obvious Fox's point seems to be, it is important to remind ourselves of the potential fallibility of our enhancement forecasts.

Of course, it is of vital importance to purport that all of the consequences I have identified as being the most plausible future results of gene doping can be mistaken. The lens through which I view future possibilities is without doubt contaminated by prejudices formed as a result of my current experiences and beliefs regarding what is possible due to my knowledge of historical events, perceptions, inclinations and nature as a human being living in a world without genetic enhancement technologies. Moreover, some may criticize my approach to ethical inquiry on the grounds that the reliability of my predictions can only be asserted once genetic enhancement is actually in practice.

My response to this objection that I identified when I first justified my chosen theoretical approach is just as relevant now as it was in my introductory chapter. Particularly, we cannot afford to wait until genetic enhancement is practiced in sport or other domains to see which consequences arise from it and then implement a retroactive policy against gene doping. William James (1897) – a prominent pragmatist – supports a proactive approach to investigating moral issues whose solution he asserts “cannot wait for sensible proof” (p. 10).

Still, some may not be satisfied with this method of rebutting the aforementioned objection. Lindsay (2005) is one such scholar who believes that it is irrational to ban gene doping now based on its potential effects being incompatible with justice simply because we could very well have miscalculated our predictions. Lindsay suggests that by speculating about justice in a genetically enhanced context, we redirect our focus from real present day issues of distributive justice. Personally, I could not disagree more with

this claim. Rather than distracting us from current social problems of injustice, I believe that debating issues of justice in a genetically enhanced future world forces us to reconsider the existing shortfalls of contemporary institutions and structures in society that aim to promote justice. For example, by envisioning wealthy people in society being able to genetically enhance themselves and their children who would then grow up to incur even more advantages because of the exclusivity of genetic technology, it is clear that this would generate a viciously impenetrable cycle for people of meager means not being able to climb up the social ladder. Perhaps by considering such a speculative hypothetical situation, we bring to light current aspects of our society that do not resonate with fair or just distributions. It is possible that this could encourage us to work on formulating effective ways of improving the present situation. For instance, we might be able to reduce gaps in wealth and opportunities between the rich and poor segments of the population by developing more tactical tax breaks and provide more avenues for people of lower socio-economic status to improve their financial security.

Unexplored Territory Outside of Fairness, Autonomy & Human Nature

The fact that we could be wrong about our predictions merely suggests that it is critical to consider other potential consequences that have not been explored in my thesis. Possible effects of gene doping – some desirable, some not – have been offered by other scholars which I purposely excluded from my thesis as they do not appear to relate to the values that have served as the crux of my ethical analysis. For instance, Allison (2005) perceives a potential revival of sportsmanism and a corresponding reduction in athleticism as a desirable potential outcome of gene doping. In other words, gene doping will yield a revival in ideas including a recognition that there is no real intrinsic value

only a socially determined value associated with sport performances, that participation in sport rather than quality of performance is more valuable, that playing in many sports is superior to specializing in just one, and that winning is not the most important feature of sport.

To be clear, Allison (2005) thinks that this revival of sportsmanism is only one of various possible directions that sport might take in the future. Other possibilities include the inception of a separate breed of elite athletes that I have examined and repudiated above. Depending on the angle from which you examine diversity, genetic diversity could be framed as increasing or decreasing due to gene doping. Within populations of athletes at the highest levels of their sport, athletes would probably be more genetically similar to their competitors; however, these individuals would be more genetically dissimilar than they currently are to non-elite athletes or non-participants. This leads Allison to question whether consumer interest in commercialized sports will decline due to spectators feeling like they cannot sufficiently relate to the athletes showcased in these elite events. This could in turn lead back to the initially described revival of sportsmanism or amateur sport. On the other hand however, the public may have a heightened interest in commercialized sport due the extraordinary performances of genetically doped athletes. Conversely, public interest could be targeted more on less vulnerable sports.

The Inevitability of Gene Doping: Are Sport Governing Bodies Fighting An Uphill Battle?

Baylis and Robert (2004) contend that although various strong reasons exist to oppose genetic technologies that would serve to enhance human capacities and traits, the

inception and introduction of these practices are inevitable. These ethicists allege that the source of this inescapability of the use of genetic technologies in society is the human ego that leads to our self-perceptions as the central figures or masters shaping the world around us and ourselves in our evolutionary development. This is congruent with the sport-specific charge that the modern-day athletic culture or institution of sport that is based on constantly intensifying performance levels gives way to a hopelessly uphill battle for sport governing bodies opposing genetic enhancement and conventional performance-enhancement practices.

According to Loland's (2005) vulnerability thesis, sports that are most susceptible to the impact of genetic technologies are the highly specialized sports in which performance depends heavily on raw basic motor capacities and less on technical and tactical skills. For example, sprint running that tests maximal explosive strength and speed would be especially vulnerable to the effects of gene doping.

Loland (2005) utilizes an analogy of the ecological crisis to briefly yet quite eloquently describe the potential effects that a lack of diversity might have on the sporting world. A higher degree of ecological diversity is an ideal as it increases the resiliency in responding to destructive changes. In the same way, Loland wants to claim that sporting performances that demand a complex and diverse array of both technical and basic motor capacities makes sport less susceptible to the potential corruption of genetic technologies.

Furthermore, Loland (2005) argues that the contemporary highly commercialized and politicized international elite sports arena turns competitions between athletes into competitions between system resources that could potentially range from training

programs to techniques that are more dependent on the expertise of others such as genetic engineering. As illustrated by both Loland (2005) and Breivik (2005), this type of athletic environment where athletes are used merely as means disrespects persons and their autonomy. Breivik describes his concern with genetic technology techniques in which specialists and parents might deprive children of the right to choose their own lives, and considers whether the right to be born or to develop without any genetic modification should represent a fundamental human right. As explained above, I certainly agree that these are legitimate concerns and believe that they suffice in justifying a ban on genetically designing children.

It is unquestionable that strategies in sport that attempt to alleviate doping are bound to fail if usage is an unavoidable side effect of the current configuration of sport and the vulnerability of highly specialized athletic contests. It can be inferred that without a restructuring of commercialized sport that demands record-breaking performances or a strategy that is informed by Loland's (2005) vulnerability thesis, anti-doping measures will inescapably fall short of achieving their purpose. Breivik (2005) lends credence to this view when he states that a fight against doping in sport will never succeed if it does not account for the overall system or the general sport culture. This supports the notion that a mere ban against gene doping might be not enough to promote the desired community.

Conclusion

To conclude, the message that I have attempted to convey through the previous two subsections is that, however thorough our analysis, we must avoid being intransigent or stubborn with regard to what we reasonably expect are probable consequences of gene

doping. In turn, we should recognize that gene doping might produce highly different future conditions to which we must be ready to adapt. In this respect, just as it has been valuable for my purposes, I believe that a pragmatic ethics perspective will continue to be useful and insightful with respect to the issue of gene doping due to its inherent flexibility. We must be able to respond accordingly to the consequences of genetic enhancement once the technology ceases to merely represent a theoretical possibility and actually unfolds into practice.

Regardless of the various compelling ethical reasons why we should vehemently oppose it, the arrival of genetic enhancement has been depicted as an unstoppable impending consequence of the perfectionist culture embodied by high performance sport. I believe that a genetically enhanced future of athletics would be well served if guided by sport policies and regulations that are informed by a pragmatic theoretical framework. Better yet, if sport governing bodies and officials are observant enough to acknowledge the futility of anti-doping measures through which they perfunctorily attenuate the symptoms rather than the cause of the problem, sport might undergo a revolutionary reconstruction converting it into an institution that is more conducive to our notion of a desirable community and less hospitable to gene doping.

What we can conclude from my pragmatic ethical inquiry is that a ban against gene doping is justifiable right now because of the reasonably expected implications of these values – particularly fairness. However, we should continually reassess the ban against gene doping along pragmatic ethical principles based on the consequences that are produced once genetic enhancement emerges fully in society.

An effective continual reassessment of the ban on gene doping will most certainly require collaboration between the sport community and the researchers most knowledgeable about both current and future genetic technologies. We would need to establish channels of communication such that the sport community could be kept informed about new technological developments, techniques and their effects. To assist this objective, annual conferences could be launched with members of both the sport and medical community in attendance. The conference could also lead to publications in a special journal dedicated to the ethics and science of genetic technology in sport.

I would also like to emphasize the need for bi-directional dialogue between members of the sport community and official sport-governing bodies in order to create more accountable and transparent public policy decisions on gene doping. The full potential of consulting those most affected by sport policies – the athletes – has yet to be realized. For instance, creating a setting for an open dialogue or forum can allow policy makers to analyze and report input from the sport community that in turn could directly affect policy decisions. It is also vital to point out that the values, preferences and opinions of athletes, coaches, fans and other stakeholders will likely change over time as society becomes better acquainted with genetic technologies and the sport community itself evolves. Thus, research must be updated periodically through regular public discussions so that proposed solutions are constantly evaluated in order to ensure that they reflect opinions encompassed by the sport community.

At least some athletes would choose to devote their time, effort and energy to participate in these discussions that could be made possible through public or online forums because of their vested interests in the outcome of policy decisions on gene

doping in sport. Through these mechanisms, those interested can relay their feedback to policymakers. For instance, it is possible that an “all or none” approach to gene doping bans oversimplifies the vast array of prospective uses associated with genetic technology. Moreover, it might become evident that qualitative differences exist among future uses of this innovation in sport that could potentially justify the acceptance of particular classifications of gene doping. Whether or not this will be the case can be discussed by the athletic community at the time for the purpose of deciding on rules and regulations that could allow athletes to engage in certain degrees or types of genetic modification such as therapeutic types of genetic modification that repair athletic injuries for instance. If it is made clear to athletes and others in the sport community that their efforts can affect policy, more persons would be encouraged to vocalize their opinions on related matters.

Among the three values, fairness is especially convincing as a basis for a ban against gene doping in sport on the grounds that it can be more easily managed, regulated and invoked by rules. With greater athlete input in the governance of sport, the broader sport community could accept and share a reasonable and common ideal of fair play. The same could not be said if efforts were taken to monitor and regulate changes in perceptions or self-understanding of what it means to be human since people already have very diverse views on this subject influenced by culture, religion, geography, race, sex and politics. Such regulatory attempts might also result in undesirable shifts of what it means to be human that cannot be easily justified. Unlike fairness, reaching consensus on a concept of autonomy and maintaining a desirable construct of humanness might be more difficult for all people to grasp and agree upon as desirable. For instance, there

could be a great deal of discord concerning what represents a desirable or undesirable change in the conception of what it means to be human.

Also, in contrast to autonomy, fairness is more conducive to agreement between different people and seems to be universally understandable and identified as acceptable even though a precise definition of fairness can vary from one culture or group to the next. For example, international sports competitions such as the Olympic Games require a certain degree of agreement on what constitutes fair play. Such events are structured so that competitors act in a fair and respectful way toward one another. In addition, policies and conditions in sport are established as fair and are implemented impartially, which is something most athletes desire and appreciate. In this sense, fairness is more critical to sport than agreed upon concepts of autonomy and what it means to be human. While the latter two values are significant in any discussion of gene doping in sport, they are less foundational than fairness to a position grounded in a pragmatic ethical approach that the current ban on such technology is defensible for the time being.

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